

1916.

ANNUAL SHOW and CONVENTION NUMBER

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Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XVII

CHICAGO, ILL., FEBRUARY 7, 1916

Number 7



THE WOODVILLE LIME AND CEMENT COMPANY

MANUFACTURERS OF WHITE LILY FINISH
WHITE ENAMEL FINISH AND ALCA PRODUCTS
TOLEDO, OHIO.
U. S. A.





Bag Bundler

IT COUNTS 'EM AND
BUNDLES 'EM

Saves Time
Eliminates Errors

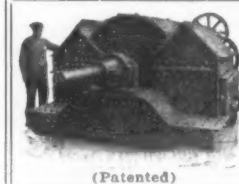
A few of our many customers say:

"It does the work of three men."
"Will shortly order three more."
"Would not take three times what we paid for it."
"It is a wonderful money saver."

[Write for prices!]

**The Faerberhill
Manufacturing Co.**
1392 East 40th St., CLEVELAND, O.

Agents wanted in every city. A side line for machinery and builders supply salesman.



"PENNSYLVANIA"

Hammer Crushers For Crushing and Pulverizing Lime, Limestone, Gypsum, Marl, Shale, Etc.

Main Frame of Steel, "Ball and Socket" self aligning Bearings; forged Steel Shaft; Steel Wear Liners; Cage adjustable by hand wheel while Crusher is running.

No other hammer Crusher has such a big Safety Factor.

Pennsylvania Crusher Co.

New York

PHILADELPHIA

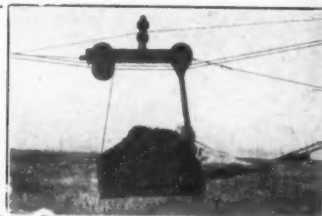
Pittsburgh

This Is Our Type "F" Bucket

Write us your condition and requirements and we will advise you if our equipment is adapted to your work.

The Cable Excavator Co.

Commercial Trust Building,
PHILADELPHIA, PENNA.



Daily Capacity
9000 Barrels



Quality
Quantity
Service

MORE THAN FIFTEEN YEARS OF SATISFACTION

FOUR PLANTS:

ALPENA, DETROIT, WYANDOTTE and CLEVELAND

HURON and WYANDOTTE

Great Water and Rail Facilities
Best Serve the Entire Middle West

EVERY BARREL TESTED AND GUARANTEED

SOLD BY THE BEST DEALERS

USED BY THE BEST BUILDERS

Main Offices: 1525 Ford Building, Detroit, Mich.

Daily Capacity
9000 Barrels



Quality
Quantity
Service



WHEELING WALL PLASTER COMPANY

TELEPHONE ORDER HOUSE. WHEELING 1093

The Building Material and Roofing
Supply House of the Ohio Valley

Fire-Safe Quality—Constructive Service

"Build With Us"

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

99

me.
to.
ar-
bie
or.
rgh



THE BELDEN BRICK CO.

Sales Offices:

Incorporated 1893

CANTON, OHIO



FIVE MODERN FACTORIES

producing practically every color and texture of Face Brick put us in position to take care of the dealer to the best possible advantage. It will pay you to have our samples and prices. Write now.

FACTORIES:

Canton, O. Somerset, O. Port Washington, O. Uhrichsville, O. Tuscarawas, O.



About Bakup and Partition Tile—

You ought to handle our 4x5x12 and 5x8x12 BAKUP TILE made from high-grade "Ohio" fire clay. We have a nice stock from which to make prompt shipments.

You can also get PARTITION TILE from us in sizes 3x12x12 up to 12x12x12.

One shipment from us will easily convince you that our material is what you ought to handle.

Write us for prices, etc.

**THE
METROPOLITAN PAVING BRICK COMPANY**
Canton, Ohio

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

LINK-BELT LOCOMOTIVE CRANES FOR EVERY SERVICE



Storing Coal



Gantry Crane



Handling Electric Magnet



Placing Concrete Forms



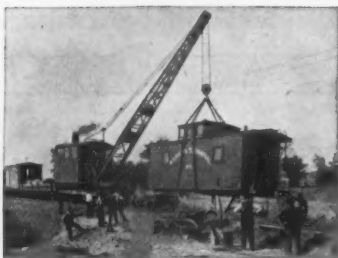
Storing Sugar Beets



Driving Piles



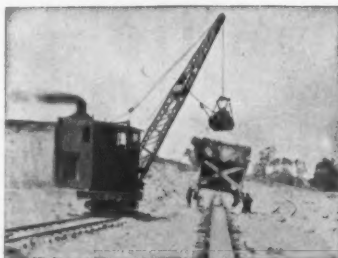
Industrial Service



Railroad Utility Service



Handling Pulpwood



Digging Gravel



Storing Crushed Stone



Handling Logs



Storing Coal at Power House

LINK-BELT COMPANY

PHILADELPHIA CHICAGO INDIANAPOLIS

New York	290 Broadway
Boston	49 Federal St.
Pittsburgh	1510 Park Bldg.
St. Louis	Central National Bank Bldg.
Buffalo	608 Ellicott Square
Wilkes-Barre	2nd National Bank Bldg.
Detroit	732 Dime Bank Bldg.
Cleveland	1804 Rockefeller Bldg.
Seattle	580 First Ave., S.
Los Angeles	294 N. Los Angeles St.
Portland, Ore.	14th & Levee St.
Denver	Link-Belt Supply Co., 418 So. Third St.
Minneapolis	C. O. Rins, 1180 Bank Bldg.
New Orleans	Frederick Wehle, 704 Bank Bldg.
Louisville, Ky.	D. T. Blakey, 704 Empire Bldg.
Knoxville, Tenn.	N. D. Phelps, Sheldon Bldg.
San Francisco	General Machinery Co.
Birmingham	Watrous Eng. Works Co.
Brantford, Can.	The Canadian Link-Belt Co., Ltd.
Toronto, Canada	



General Contract Work

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

WHY THE LAKEWOOD!

The Kelley Island Lime and Transport Co.

One lime concern, operating three mammoth plants, employs 250 "Lakewood Cars." All are steel cars of different types. Each designed for its particular purpose—characteristic of Lakewood Engineering Service.

Some are new—of recent designs. Others show the marks of wear and tear—yet every one is still in use.

Doesn't this mean something to you? Exactly—this:

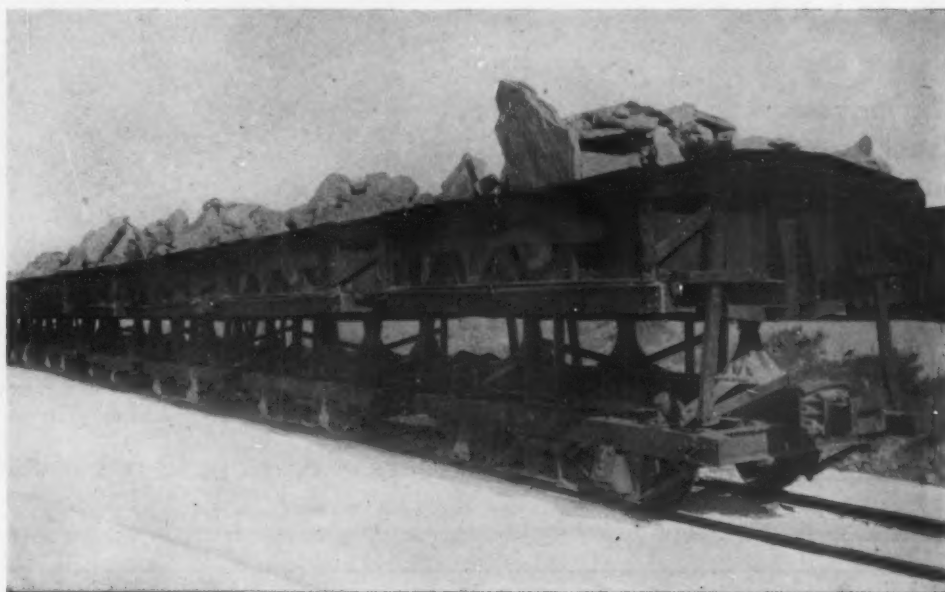
First—Repeat orders are proof of efficient service.

Second—Efficient service means that each car was carefully designed for its work. Built to last—durable and mechanically perfect.

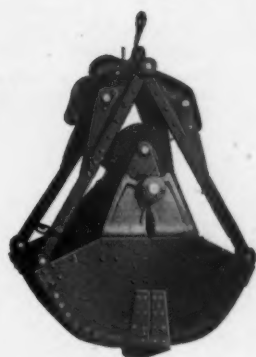
Third—All this spells economy and success.

Then, too, this concern realized the vast accumulation of experience of the Lakewood Engineering Company—its personal engineering service—its reputation. It knew that the same special engineering effort was behind the one car order, as well as the hundred lots.

Our Engineers—Whose Motto Is "Build to Last" Are at Your Service



A Word About Lakewood Clam Shell Buckets



The efficiency of every crane is measured by the efficiency of its bucket. The crane is merely its power and guide. Our buckets insure crane service. Special designs for all kinds of digging.

**Ask the Globe Brick Co., East
Liverpool, Ohio, What They Think**

Lakewood Engineering Co.
Cleveland, Ohio

Eastern Selling Agents—Brown & Sites Co., 30 Church Street, New York

PITTSBURGH
1230 Fulton Bldg.

CHICAGO
506 So. Canal St.

KANSAS CITY
909 N. Y. Life Bldg.

BALTIMORE
1123 Munsey Bldg.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Why Not Modernize Your Yard?

You may have the latest type of Crushers, Auto Trucks, etc., but if your equipment does not include a



McMYLER INTERSTATE CRANE

to handle materials, shift cars, place your screens, load trucks and a hundred other things you are losing a legitimate part of your profits. We will be glad to submit figures if you are interested in improving your yard conditions. Bulletin on request.

Address inquiries to the nearest office

The McMyler Interstate Co., Dept. P-5, Cleveland, Ohio

Chicago, New York
London

THE Kosmos Portland Cement Co. realize that the Speed Economy and Durability of a Crane rest altogether upon its construction—not its price.

Study the construction of Ohio Cranes—ask its well-known users about its reliability—you'll then admit its slightly higher first cost is merely its money value.

90% of the "Castings" are basic open hearth steel.

Write for Catalogue No. 11

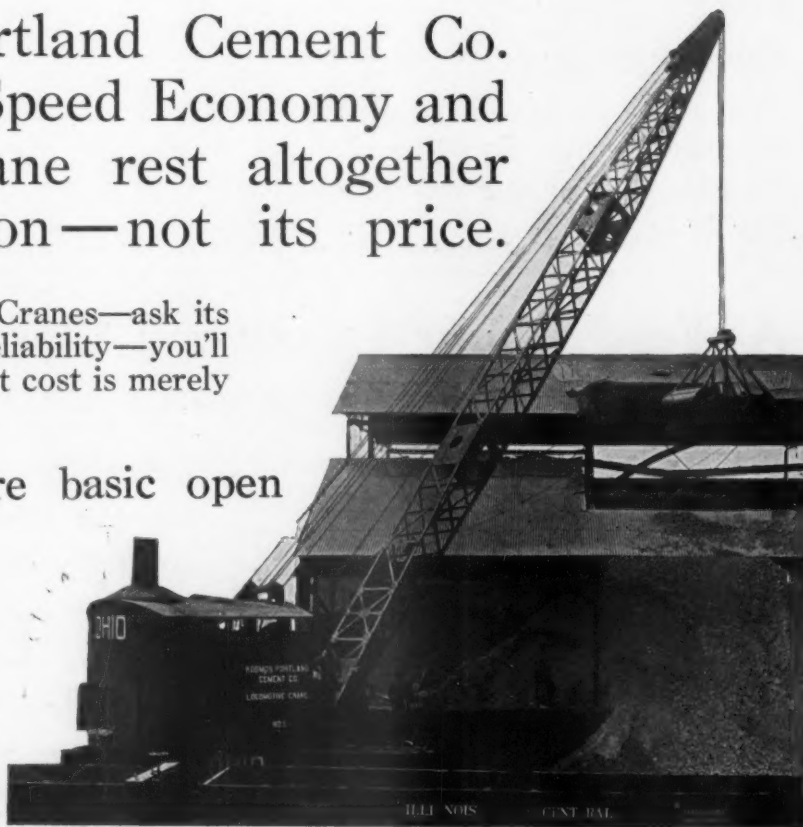
Ohio Locomotive Crane Co.

Poplar Street,

BUCYRUS, OHIO

30 Church St. New York
Fisher Bldg. Chicago
Home Life Bldg. Washington, D. C.
Oliver Bldg. Pittsburgh

Edward R. Bacon Co. San Francisco
Centrs. Equip't Co. Seattle, Portland
N. C. Walpole Birmingham, Ala.
950 Rockefeller Bldg. Cleveland, O.
Kelly, Powell, Ltd. Winnipeg, Montreal



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Alliance Rug Brick



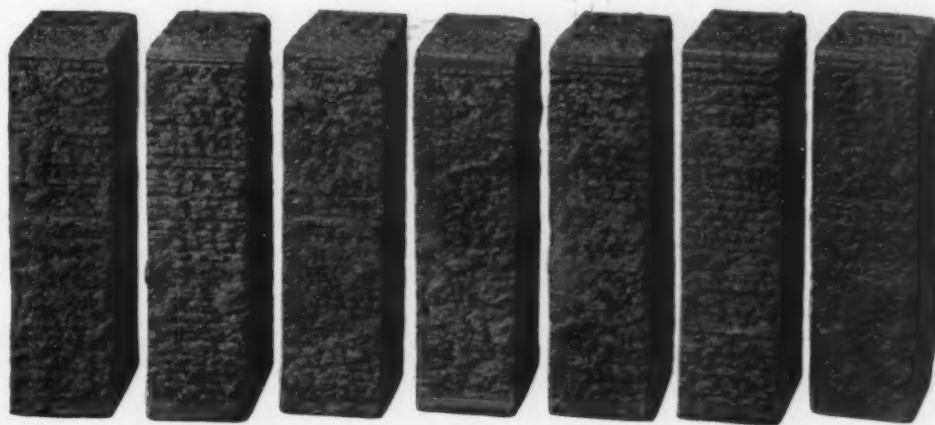
MR. MATERIAL DEALER: While attending the Complete Building Show, February 16 to 26, at Cleveland, we ask that you call at the Alliance Rug Brick Headquarters, room 532 Statler Hotel, and get acquainted with what is acknowledged to be the "Best Rug Brick" made anywhere---best in colors, best in texture, best in quality, and far the best seller on the market. Come to room 532 Statler Hotel and arrange for the agency for your territory. Alliance Rug Brick will boost your sales.



Alliance Multi-Color Rug Brick No. 76

Alliance Rug Brick excel all other brick as to beauty of coloring. The chromatic scale of colors runs through the beautiful Rug-texture faces, most of the individual brick showing on the face of each brick **three or four or more** of the seven primary colors or their shades---gun metals, wines, chocolates, browns, ox-blood reds, buff tones and multi-colors.

These bricks are made of Ohio shale of the highest grade. They are thoroughly vitrified, permanent in color, standard in size---right in every characteristic.



The Seven Types of Brick in Alliance Multi-Color Rug Brick No. 76.

The seven Brick above illustrated represent the seven distinct types of brick composing the panel above. Study these two illustrations---they tell of wonderful possibilities for the architect and builder. The dark wine or gun-metal brick at the right of above seven brick is also sold as a straight shade---Alliance Rug Brick No. 75.

THE ALLIANCE BRICK CO., ALLIANCE, OHIO

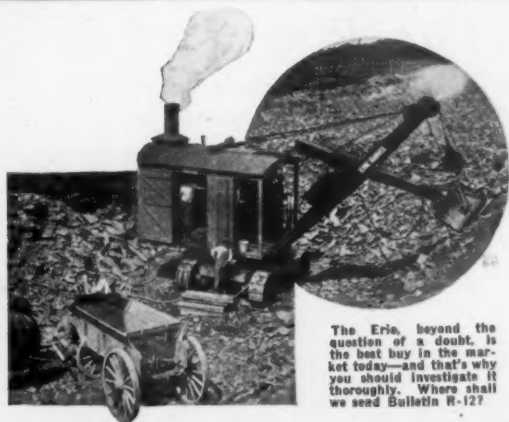
This page was printed by The Review Publishing Co., Alliance, Ohio. Work of this character solicited.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Alliance Rug Brick were used in the above magnificent bank building of the Western Reserve Bank in Warren, Ohio. Alliance Rug Brick were also used in the million-dollar mansion of H. H. Timken, at Canton, Ohio, manufacturer and patentee of the famous Timken roller-bearing axles. This residence was, perhaps, the finest built in America in 1915. The historic Tod House at Youngstown, and the Garfield Bank at Cleveland are also splendid examples of the magnificent effect that may be produced by the use of this most permanent and most beautiful of all building materials---Alliance Multi-Color Rug Brick.

The Alliance Brick Co., Alliance, Ohio.



The Erie, beyond the question of a doubt, is the best buy in the market today—and that's why you should investigate it thoroughly. Where shall we send Bulletin R-127?

Ripped Through 9,000 Cubic Yds. of Rock!

Contractor Murray does some remarkable digging with Type B, 3-4 cubic yard

ERIE REVOLVING SHOVEL

Almost any of the statements that P. H. Murray of Rochester, N. Y., makes about his Erie Shovel deserves equal emphasis with the one thrown into the light in the heading of this advertisement. For instance, he writes:

"Have used the shovel 2½ months on N. Y. State road contract, excavating 16,000 cu. yds. of earth and 9,000 of solid rock. In one day cut we loaded 2,697 loads of 3 dippers each in 5 days, an average of 539 loads. In one day we loaded 718 loads. Made a cut through rock 22 ft. deep. Although it lay in solid strata, we removed 4 ft. of top without blasting. After blasting our only trouble was to get teams enough."

In brief, here is another prominent, successful contractor who has found the Erie to be all we claim for it, plus. You see, the Erie Shovel is making excavating history—and at the same time making a name for itself unique in the history of steam shovels.

BALL ENGINE CO., Erie, Pennsylvania

BRICK—The Old Way of Handling Them is a Nuisance

In tossing brick out of a car many are broken. A wheelbarrow doesn't carry enough bricks to warrant the time it takes to load, wheel it out and dump it.



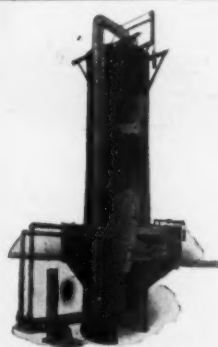
Use a CLEVELAND BRICK CLAMP

It is the Newest and Quickest Way

Furthermore, in unloading brick it actually saves ONE-THIRD of the time over the old methods. This clamp is adjustable and will carry from FOUR to TWELVE bricks. There's no fuss or bother. Simply place the clamp down on the bricks and lift the handle.

The price? It is so inexpensive ANYONE can afford it. Just send your name on a postal and we'll send a neat catalog and price list.

THE P. D. CRANE COMPANY, 10225 Meech Avenue, Cleveland, Ohio



Doherty-Eldred Lime Kilns

Complete Lime
Burning Plants

*Refractory Material
for Linings*

The Improved Equipment Co.
Combustion Engineers 60 Wall St., New York City



Haiss Buckets

No Maintenance Cost

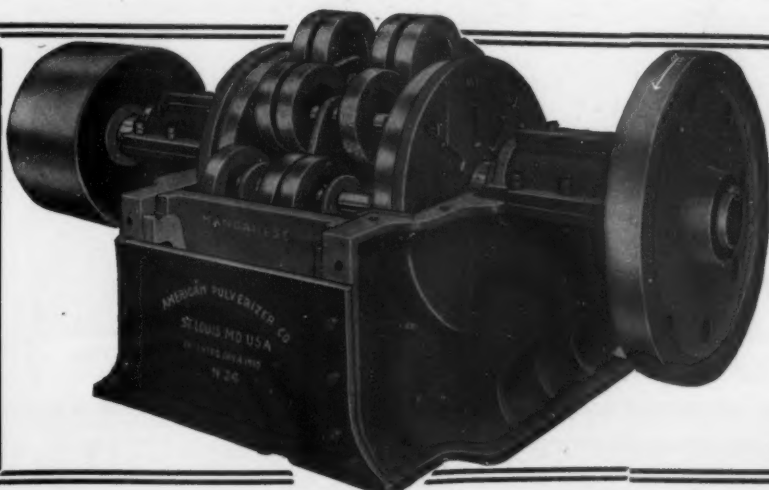
An investigation of clam-shell buckets will promptly disclose the superiority of Haiss buckets. Their strength and rigidity eliminate the cost of repairs for years. Our literature shows illustrations of a great variety of work on which Haiss Buckets are used.

Catalogue No. 614 describes and illustrates Haiss High-Power Digging Buckets

Catalog No. 1014 for Haiss Rehandling Buckets

Write us now

George Haiss Mfg. Co.
INCORPORATED
146th St. and Rider Ave.
NEW YORK CITY



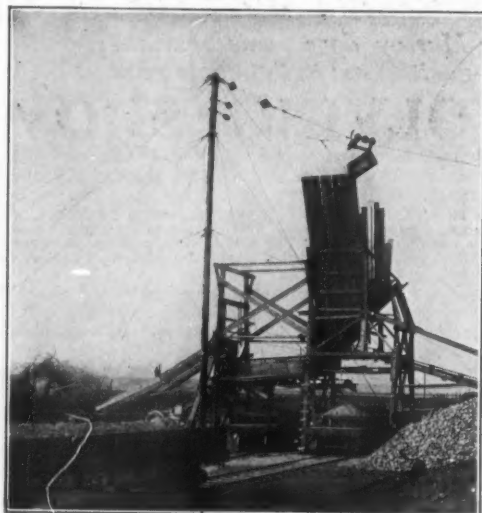
Pulverize your limestone for agricultural purposes, glass purposes, concrete purposes, road purposes, sandstone into sand, glass cullet, manganese ore, 80% ferro-manganese, 50% ferro-silicon, slag, furnace linings, brick bats, coke, coal, shale, quartz, pyrite iron ore, phosphate rock, etc.

**Most tons pulverized
to given fines with
least operating cost**

Write us description of material—number tons per hour—screen mesh and get our estimate and catalog

AMERICAN PULVERIZER CO., East St. Louis, Ill.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Economy and Efficiency

This excavator is not only adapted to discharge the load at the power end but also at the ANCHOR END of the cableway.

In this operation the delivery is accomplished by gravity, no power being required for transmission.

These are but part of the features of the Negley Excavator—we will be pleased to give you complete information.

INDIANAPOLIS CABLE EXCAVATOR CO.
216-18 Massachusetts Ave., Indianapolis, Ind.

The Best Test

of successful lime plant installation
is an order for additional kilns



6 KEYSTONE KILNS, UNION CARBIDE CO.,
SAULT SAINTE MARIE, MICHIGAN

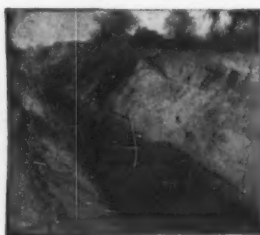
A recent order from the Union Carbide Co., illustrates the value of a Steacy-Schmidt installation—After operating six Steacy-Schmidt kilns successfully for over 10 years, this company has recently ordered 6 new kilns, in addition to the present plant.

The engineering department of the Steacy-Schmidt Mfg. Co. are at the services of any firm interested in efficient methods for crusher plants, lime kilns and hydrating plants

"Success Builders for the limestone industry"

Steacy-Schmidt Mfg. Co.
York, Pennsylvania

Manufacturers of the famous Keystone kilns—183 now in use.



1 yard scraper dragging load of sand through out

Do You Want to Increase the Efficiency of Your Sand and Gravel Plant?



1/2 yard scraper with front and rear bridge chains

Would you like to reduce the number of times you have to shift your field conveyor per season and at the same time decrease your operating expenses? The Sauerman Bottomless Power Scraper will deliver to field conveyor, elevator, cars or storage pile.



1 yard scraper delivering sand direct to cars

One man operating a double drum hoist controls the digging, conveying and dumping.
Scrapers built in sizes from 1/2 cu. yd. to 2 cu. yds.

Why not call at the Cement Show—
Feb. 12-19, look over our line of
equipment at booths Nos. 179, 180,
181 and consult us about your problems.

SAUERMAN BROS.

1140 Monadnock Block, Chicago

Mfrs. of Cableway Excavators, Power Scrapers and Cableway Accessories

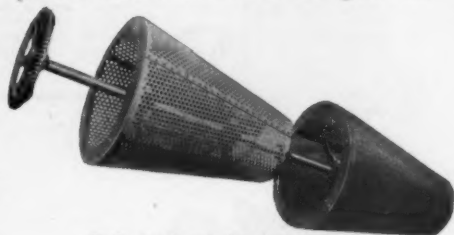


1/2 yard scraper delivering coarse gravel to belt conveyor

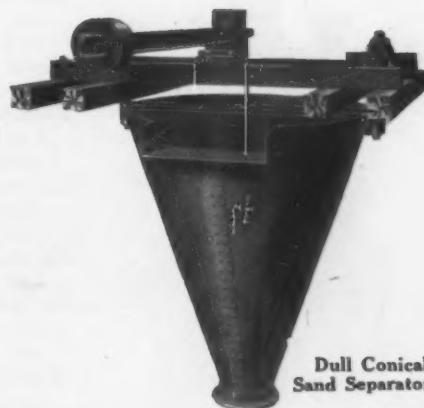
Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

DULL GRAVEL WASHING EQUIPMENT GIVES SATISFACTION

We are engineers and the only specialists in the design and manufacture of gravel washing equipment. Our experience enables us to handle sand and gravel problems successfully under the most difficult conditions.



Dull Inclined Conical Screens



Dull Conical Sand Separator

Read Below What Some of Our Customers Say

One Says:—

The plant you designed for us has greatly exceeded our expectations from an efficiency standpoint. The plant has now been in operation for two years, during this time we have never been shut down to exceed two hours, account of break downs or other equipment troubles.

We are proud of this record and write you about it, in appreciation of the service you have given us in reducing our shut downs to a minimum.

(NAME ON REQUEST)

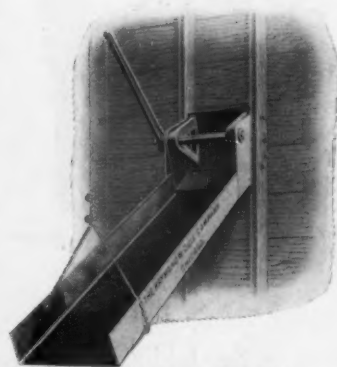


Complete Plant—Dull Designed and Dull Equipped

Another Says:—

Regarding the operation of your new type of sand separating tank. As you know we now have two of the 72" and one of the 60" tanks in operation and they have given perfect satisfaction. We are so well pleased with them that we are further displacing two of the old types of tilting tanks with two more of your 72" tanks for which order was recently placed. The fact that we are displacing tanks now installed, with your machine is the strongest commendation we can offer.

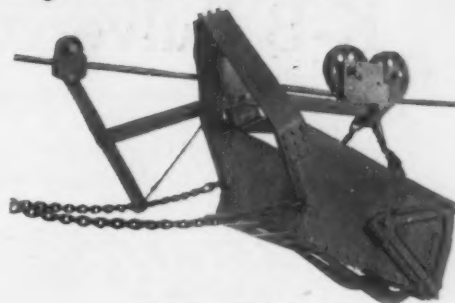
(NAME ON REQUEST)



Segmental Gate

The Dull Cableway Excavator

This is the most durable and efficient bucket of its kind on the market. It is correct in every mechanical detail. Wearing parts are manganese steel, and on account of its simple construction, all parts are easily accessible.



Dull Excavator Bucket

Write for Catalog, "Plants for Washing Sand and Gravel"

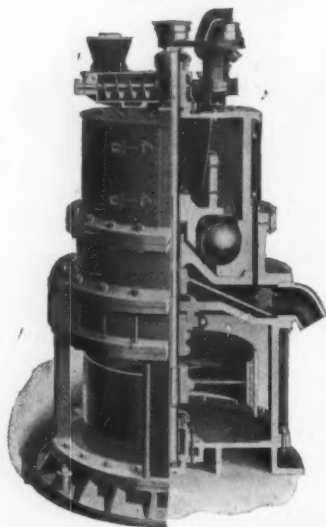
THE RAYMOND W. DULL COMPANY
1914 Conway Building, Chicago, Ill.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

The Fuller-Lehigh Pulverizer Mill

A Complete Self-Contained Unit

The most economical mill for producing
Agricultural Limestone



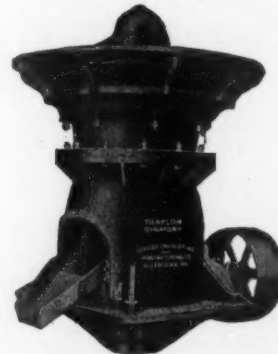
Reduces lump rock to 20, 40, 60, 80, 100, or 200 mesh.
Requires no outside accessory equipment.
Requires no overhead shafts, drives or screens.
All material discharged from mill is finished product.
No inside journals or bearings.
No inside lubrication.
Uniform feeding system.
Constant and free discharge.
Low installation cost.
Low operating cost.
Low lubricating cost.
Dustless operation.

Built in sizes to meet the requirements of your trade. Grinds rock to meet the specifications of all Agricultural Experiment Stations.

SEND FOR CATALOG NO. 70

Lehigh Car, Wheel & Axle Works
Main Office and Works: Catasauqua, Penna.

Crushing Machinery Built to Meet All Demands

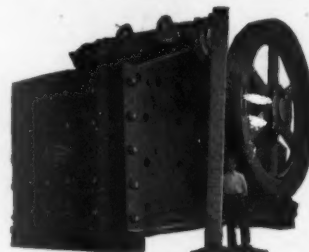


Large eccentric bearing. Spider arranged for removal of the concaves without dismantling the crusher.

Shaft suspended at point of least motion.

Cast steel gear and pinion. Removable counter-shaft bearing.

Built in sizes from No. 2 up to No. 10.

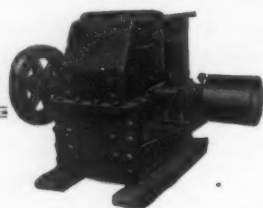


Water-cooled pitman and pitman bearings. Removable bushings in pitman and pitman bearings.

Large openings allowing steam shovel operation.

Built in sizes up to 66" x 86".

Traylor Engineering & Manufacturing Co.
Works: Allentown, Penna.
Eastern Office: 24 Church St., New York City; Western Office: Salt Lake City



Use a

K-B Pulverizer

to reduce your material economically from 3" to dust. Only 10-12 H. P. is required to crush 5-8 tons per hour, and 20-25 H. P. to crush 10-14 tons per hour.

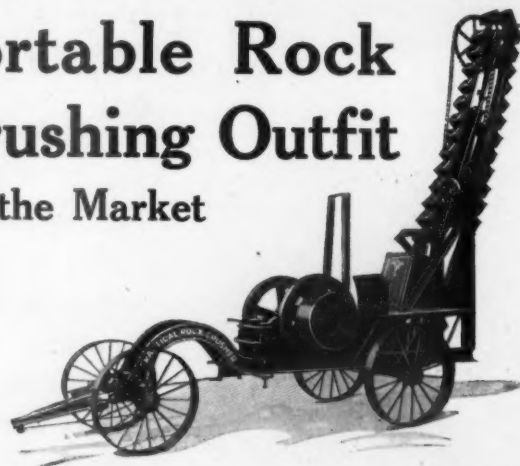
This hammer-mill is built entirely of steel, and lined with manganese hardened steel plates to protect the frame from any wear. The hammers are adjustable so that their service is multiplied by four. The screens slide out like drawers, to insure easy access to the interior of the machine.

Write today for catalogue

K-B PULVERIZER COMPANY, Inc.
86 Worth Street, New York City

"Built for Service and Durability"

This Is the Most Efficient Portable Rock Crushing Outfit On the Market



The old troublesome joints of the folding type have been eliminated, and the elevator is all in one section, always ready for use.

CONSTRUCTION—Made entirely of open hearth steel (except fly wheels and pulley). No wood construction. Crusher equipped with jaw plates and liners made of our well-known Hard Iron. Elevator is light but rigid, being constructed of structural iron shapes.

Write for further interesting facts on this outfit

Webb City & Carterville Foundry & Machine Works
Main Office, Webb City, Mo.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Orders That Are Gratifying

A repeat order for a machine is gratifying because it proves that the machine has made good.

A repeat order from a customer who has tried other kinds of machines intervening his initial order and his repeat order is most gratifying, because it proves that he has tried all kinds and knows which is best and orders accordingly.

When concerns like the

Sandusky Portland Cement Co.
Crescent Portland Cement Co.
St. Mary's Portland Cement Co.
Southwestern States Portland Cement Co.
Peerless Portland Cement Co.
Ironton Portland Cement Co.
Aluminum Co., of America

and others send in repeat orders for

MAXECON MILLS

Isn't it pretty good evidence that our pulverizers have made good? They are paying investments. Companies such as the above profit by experience.

Some recent initial orders are:

Michigan Limestone & Chemical Co.
Kelley Island Lime & Transport Co.
Atlas Portland Cement Company
Cayuga Cement Corporation
San Antonio Portland Cement Co.

KENT MILL CO., Brooklyn, N. Y.



ANNOUNCEMENT

WE are now prepared to produce with the **New Williams System** a finished product of 100 to 200 mesh goods on dry **Coal, Limestone, Clay, Shale and Gypsum**. These results are made possible by combining our experience in the manufacture of grinding machinery and air-lifting outfits, with that of an expert in air separation.

The **Williams System** of fine grinding is more efficient and economical, will grind to 98% through 100 mesh in one operation with 75% less power, than any other grinding unit now in use. Is **Dustless, Noiseless and Continuous** in operation; **Accessible, Adjustable** and **Lowest Cost** in upkeep. The only machine that will take 2" feed from crusher and dryer, and finish in one operation.

We are entitled to the confidence of the Cement maker, the Lime or Gypsum manufacturer, by reason of our past reputation of furnishing preliminary grinders that many believe to be the best grinders on the market. Below you will find a few who believe in the Williams ideas.

CEMENT PLANTS

Mills		Mills		Mills	
Acme Cement Co.	2	Golden States Portland Cement Co.	2	Rocky Mountain Portland Cement Co.	1
Altoona Portland Cement Co.	4	Great Western Portland Cement Co.	2	Sandusky Portland Cement Co.	7
Ash Grove Lime & Cement Co.	2	Holderberg Cement Co.	3	St. Mary's Portland Cement Co.	1
Burt Portland Cement Co.	2	Ironton Portland Cement Co.	2	S. W. States Portland Cement Co.	1
Bonner Portland Cement Co.	1	Iola Portland Cement Co.	10	Southwestern Portland Cement Co.	3
Clinchfield Portland Cement Co.	3	Iowa Portland Cement Co.	2	Superior Portland Cement Co., Baker, Wash.	3
Chanute Cement Products Co.	2	Independence Portland Cement Co.	3	St. Louis Portland Cement Co.	2
Crescent Portland Cement Co.	2	Independence Kansas Portland Cement Co.	3	Standard Portland Cement Co.	2
California Portland Cement Co.	2	Knickerbocker Portland Cement Co.	1	Texas Portland Cement Co.	1
Cowell Lime & Cement Co.	2	Kansas Portland Cement Co.	2	Tidewater Portland Cement Co.	1
Cape Girardeau Portland Cement Co.	4	Kosmos Portland Cement Co.	2	Three Forks Portland Cement Co.	2
Continental Portland Cement Co.	3	Lawrence Portland Cement Co.	3	Universal Portland Cement (Coal)	17
Colorado Portland Cement Co.	1	Monarch Portland Cement Co.	3	Universal Portland Cement (Limestone)	21
Copenhagen Portland Cement Co.	1	Merrimac Portland Cement Co.	3	United States Portland Cement Co.	2
Dawey Portland Cement Co.	1	Nebraska Portland Cement Co.	2	Union Portland Cement Co.	2
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0	4"x 4"	2 to 4	6 to 8	1600 lbs.
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2	6"x 10"	8 to 12	20 to 22	5400 lbs.
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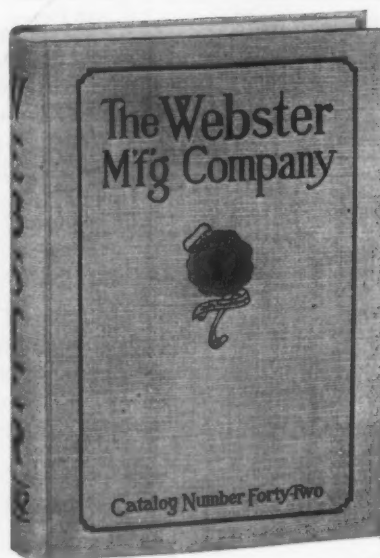
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Webster General Catalog No. 42

This is our newest general Catalog, No. 42; it is just ready for distribution. In it will be found illustrations and descriptions of the equipment which we design and manufacture for

The Cement Mill, Gypsum Mill, Plaster Mill, Stone Crushing and Storage Installations, Sand and Gravel Screening and Washing Plant, for the General Contractor—wherever Concrete Materials are handled in quantity. We include

Cylindrical Screens
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And many other similar items including chains and sprockets for elevating and conveying and power transmission service.

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but we ask that you state in your letter or card the nature of your business—whether cement, crushed stone, lime, sand and gravel, or contracting.

The Webster Manufacturing Company

Chicago

Tiffin, Ohio

(124)

New York

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Ohio River Contract Company Breaks World's Concreting Record On Government Dam Work With a "Plymouth" Locomotive

The U. S. Government is building the longest movable dam in the world in the Ohio River, 18 miles below Evansville, Ind.—and the only one ever constructed on a shifting sand foundation.

In its construction the contractors, The Ohio River Contract Co., is using two "Plymouth" Gasoline Locomotives, and these two little Giants have not only broken the world's concreting records but have cut them in HALF.

Read the Remarkable Figures in This Great Feat

The following figures are taken from a report made by Leslie P. Eichel, Secretary of The Ohio River Contract Co., of Evansville, Ind., and give an idea of the manner in which these two "Plymouth" Gasoline Locomotives have speeded up the work:

"The 'Plymouths' operated maximum round-trip of 1600 feet, with stop for loading concrete at mixer and for dumping material. The average time for each 'Plymouth' was 4 minutes, day and night, for 22 days, including all break-downs of concrete machinery."

"We placed, using one 'Plymouth' half

the time and two other half, 9910 cubic yards in 269 hours, including all delays.

"In 12 hours, on 1600-foot run, 513 cubic yards with two 'Plymouths,' 475 cubic yards in 12 hours.

"On a long run, 355 cubic yards in 8 hours with two 'Plymouths.'"

The "Plymouth"

Gasoline Locomotives

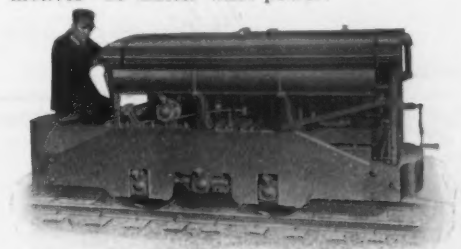
Made These Feats Possible, and Besides,
Saved \$44 in Haulage Cost Every 8 Hours

The Ohio River Contract Co. not only gives the "Plymouths" ALL the credit for these records, but says that each "Plymouth" saved it \$22 on each 8-hour shift in actual cost, comparing each locomotive with SIX MULES which they replaced.

Here's How "The Plymouths" Did It

There are three BIG reasons why the "Plymouths" could speed up this work as they did and at the same time reduce the cost to such an extent—Plymouth FRICTION Drive, Plymouth LOW FUEL Consumption, and Plymouth LOW LABOR Cost—

And here's why these Plymouth features are superior to all other locomotives—no matter what power:



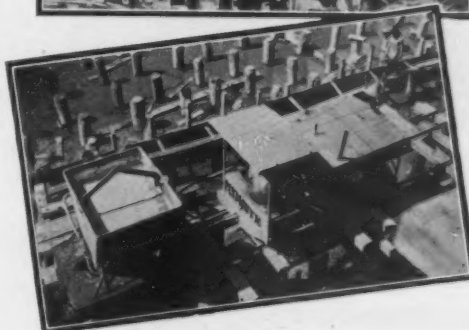
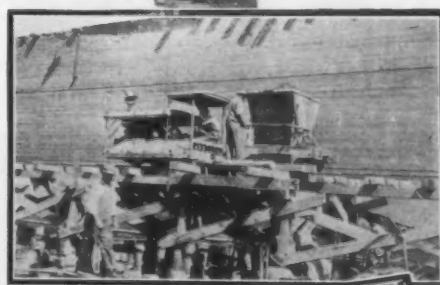
1 Plymouth Friction Drive has variable speeds and picks up load quicker than any other power.

2 Plymouth Fuel Consumption averages only FIVE gallons of gasoline per day.

3 Plymouth Labor calls for only one unskilled man at minimum wage, no engineer necessary.

THE J. D. FATE COMPANY

210 Riggs Ave., Plymouth, Ohio



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The Ohio River Contract Co.

We have a small folder that gives a complete record—all by Secretary Eichels of The Ohio River Contract Co.

Full cost per ton-mile, length of hauls and many other interesting figures—a truly wonderful array of facts!

FREE—Send for It

It is interesting to every contractor and every manufacturer who has a haulage problem and we believe we have enough for all that ask for it, but do not take a chance—Send TODAY.

Use the Coupon

For your convenience there is the coupon at the right, but a post card will do if you prefer. Just ask for The Ohio River Contract Co.'s Folder.

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LEHIGH PORTLAND CEMENT COMPANY

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Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

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Sheet metal products, such as metal lath and corner bead, now indispensable supplies, have got to advance with the base price of steel.

Plaster products, particularly wall board and partition and roofing tile, are steadily gaining popularity because they are cheap enough and good enough to exactly fill the requirements.

The mileage of road improvements has got to be increased materially and connecting links put in at many places before the expenditures already made can be fully appreciated. There is a long, long mileage to be improved before there can be anything like contentment in this direction.

Just ten years ago upon this page we first publicly recommended the addition of hydrated lime in the proportion of 15 to 25 per cent by volume of the Portland cement contained in concrete mixtures, as the best means for improving the density and compression value of the resultant concrete work. It has ever since proved to be good practice, and now pretty generally adopted in all parts of the country. That first recommendation was based upon a very satisfactory concrete experiment, still working.

Railroad managements are already announcing car shortages, which means that the usual tonnage of early spring business can not be accommodated. The congestions of the great transcontinental lines at the Metropolitan terminal of New York which began last fall, have never been relieved. Car requisitions already recorded indicate that the distribution of necessary materials is going to be the biggest problem that the transportation interests ever tackled. For the first half of the present year at least there will be more delivery disappointments than the business men of this country have encountered heretofore. This applies to all lines and all localities, and should be well considered by all who have a long line of tonnage to move.

The sale of the great building material staples could promptly be doubled this year of grace, if the local dealers and agents could be taught practical sales argument, so that all of them could work upon a systematic plan of developing the maximum business each in his own little territory. We would like to receive the suggestions of all of the thinkers on this important subject, in the hope of developing a nation wide plan to employ at this main tap-root of prosperity.

If all of the dealers, contractors, engineers, architects and others who attend conventions during the next two weeks could be made to adopt the slogan, "build of concrete because it is permanent and safe from fire, and costs no more, either in the first investment or in upkeep," it would certainly help a whole lot. As soon as all of the people of this country are convinced of the facts contained in this statement a tremendous benefit and conservation will have been accomplished. It is the chiefest object that can be obtained by all the efforts and attention concentrated in convention occasions.

Car shortages destined to continue throughout the year suggest that crushed rock, sand and gravel deliveries, made by independent, privately owned transportation facilities, will be more important than heretofore. The motor truck and trailer equipments, the big tractors with trailers, and dump wagon teams are going to deliver a greater percentage of the tonnage this year than last, for every mile of improved road makes such equipment more valuable to the owner and operator. The greatest period of activity, and consequently of prosperity, that we have ever known is just dawning upon us with the first blades of grass that come out of the ground in 1916.

The supply of common labor in quarry operations, road work, and other improvement undertakings is getting shorter and shorter by the absorption of such help in other industries that are expanding by leaps and bounds. The application of mechanical equipment to multiply the efficiency of manual labor is more insistent than ever, and is indispensable to the successful handling of the low priced commodities that run up into big tonnages. Steam shovels, traveling cranes, grab buckets, and improved crushing and pulverizing devices, as well as power equipment, have got to be selected and provided with a view to the utmost efficiency, and promptly.

The National Builders' Supply Association convention, to be held at Cleveland in conjunction with the meeting of the Ohio Builders' Supply Association and the great fireproof building show conducted by the Society Advocating Fire Elimination, will be the great rallying point for the dealers who handle the principal and indispensable materials of construction throughout the country. No man in the industry who has a growing business can afford to miss the Cleveland convention. Practically everyone engaged in builders' supplies recognizes the firmer and upward trend of values, which always means better prices and more business. Since everyone is full of the feeling of encouragement it is well worth while to assemble at Cleveland with the host, so as to understand the situation all the better. Southern markets are already beginning to show activity, and there is every indication of an early rush of building at each and every market throughout the country. Without a doubt there will be more dealers in Cleveland than were ever assembled in one city before, and the management of the National Builders' Supply Association are promising some wholesome progressive developments.

WITH YOU and ME

The Keystone Plaster Co., has sent to each of its friends a paper weight and clip containing a perpetual calendar. The only advertising appearing upon the souvenir is the trade mark of the company.

E. M. Tate, secretary of the Pittsburgh Builders' Exchange, is very much interested in the coming Cement Show at Chicago and is encouraging all members of the exchange to "take in" the display.

German Buehrle has purchased ground along the Youngstown & Southern railroad at the foot of Princetown avenue, Youngstown, Ohio, where he expects to establish a retail builders' supply and coal yard.

G. W. Anderson, formerly in charge of the St. Louis branch of the Johns-Manville Co., became manager of the Indiana Plaster and Roofing Co., a subsidiary of A. B. Meyer & Co., Indianapolis, on Feb. 1.

Brooks Miller, for thirteen years with the Philadelphia Quartz Co., severed his connections with that firm in January to represent the Roemac Co., of Thorold, Ont., Can. He will represent the firm in the state of Indiana and shortly establish an office at Indianapolis.

The Standard Material Co., of Chicago, of which Walter L. Woods is president and treasurer, has presented its friends with one of the most practical and durable note books in existence. The inside front cover of the book contains a list of the supplies regularly carried in stock.

F. O. Gulley, president and general manager of the Ozark White Lime Co., reports that high waters damaged his plant at Fayetteville, Ark., the latter part of January to the extent of \$1,000. The company's ability to furnish "Clear Creek," "Crescent," and "Uncle Sam" brands of lime is not materially affected.

J. F. Benton will represent the Kent Mill Co. at the Chicago Cement Show, and he promises to be on hand when the opening gun is fired at 2 o'clock, Saturday afternoon, until General Manager Hall blows the bugle for the closing of the great cement interest. Mr. Benton says there is nothing but the ring that wabbles and that Kent mills are doing it everywhere now.

Edward R. Pusey, president of the Edward R. Pusey Co., Wilmington, Del., states that the outlook for spring and summer business in his part of the country is very encouraging but that conditions at this time are rather quiet. In the city of Wilmington several large operations are under consideration and work was recently begun on the du Pont building.

The Consolidated Co., which was recently organized by Edward K. Cormack, formerly president of the N. B. S. A., has issued an attractive folder for its Chicago trade. The folder states that the company distributes concrete, mason, paving and plastering contractors' supplies. A list of the materials carried in stock is printed together with statements relative to the quality, service and level prices policy of the concern.

Due to the rapidly increasing business in the Northwest and in order to give customers prompt and efficient service, the Lehigh Portland Cement Co. has established a sales office at Mason City, Ia., under the supervision of J. H. Black as district sales manager. Business in this territory was formerly conducted from the Minneapolis office, which will still be retained in the Security building, that city, under the supervision of J. J. Kehoe.

J. Edward Frid, president of the Canadian National Clay Products Association, is secretary-treasurer and manager of the George Frid Brick Co., Limited, which was recently made an incorporated company. This company has also made a start in the builders' supply business in addition to operating the two brick plants at Hamilton. Mr. Frid is an enthusiastic baseball fan and is vice-president of the Canadian Professional League and one of the managers of the Hamilton team in that league.

Scheduled Shows and Meetings.

Feb. 8-9, 1916—Chamber of Commerce of the United States, annual meeting, Washington, D. C.

Feb. 8-10.—Illinois Clay Products Association, annual meeting, Hotel Jefferson, Peoria, Ill.

Feb. 12-19.—Ninth Chicago Cement Show, Coliseum and Armory, Chicago, Ill.

Feb. 14.—Building Inspectors' Conference, Auditorium hotel, Chicago.

Feb. 14-17.—American Concrete Institute, annual convention, Auditorium hotel, Chicago.

Feb. 15-16.—Ohio Builders' Supply Association, annual convention, Statler hotel, Cleveland, Ohio.

Feb. 15-17.—Illinois Lumber and Builders' Supply Dealers' Association, annual meeting, Sherman hotel, Chicago.

Feb. 15-18.—Second National Conference on Concrete Road Building, Auditorium hotel, Chicago, Ill.

Feb. 16-26.—First Complete Building Show, Coliseum, Cleveland, Ohio.

Feb. 17-18.—American Concrete Pipe Association, Auditorium hotel, Chicago.

Feb. 17-19.—National Builders' Supply Association, annual convention, Statler hotel, Cleveland, Ohio.

Feb. 18-19.—West Virginia Lumber and Builders' Supply Association, annual meeting, Windsor hotel, Wheeling, W. Va.

Feb. 20-26.—National Brick Manufacturers' Association, annual convention, Statler hotel, Cleveland, Ohio.

Feb. 21-22.—National Paving Brick Manufacturers' Association, Statler hotel, Cleveland.

Feb. 22-23.—Del-Mar-Col Builders' Material Dealers' Association, annual meeting, Emerson hotel, Baltimore, Md.

Feb. 24.—New England Builders' Supply Association, New American house, Boston, Mass.

Feb. 29.—Central Iowa Retail Lumbermen's Association, annual meeting, Waterloo, Iowa.

Feb. 29—March 4.—Tenth Annual Mid-West Cement Show, Omaha, Neb.

March 9.—Building Material Dealers' Association of Eastern Pennsylvania, annual meeting, Walton hotel, Philadelphia.

March 22-23.—New York State Builders' Supply Association, Onondaga hotel, Syracuse, N. Y.

The Pennsylvania Portland Cement Co. has opened an office at 101 Milk street, Boston, with Edward E. Savery, as manager. Mr. Savery had been out of the cement-selling line for several months and had been with the Tylose company, makers and appliers of a cement preservative, which had a big run last season in this city and was recently much in the public eye through days and days of publicity by the medium of a city hall investigation of its contracts in public buildings.

L. F. Jackson, manager of the Boston office of the Northwestern Expanded Metal Lath Co., is of the opinion that 1916 will prove a banner year for New England supply houses and contractors. Mr. Jackson said to the representative of ROCK PRODUCTS AND BUILDING MATERIALS that the prospects improve every day with the approach of spring; that dealers are extending their lines with an optimistic view and the result would be apparent when there is a clearance of the present congested traffic situation.

A. B. Meyer, of A. B. Meyer & Co., Indianapolis, Ind., is optimistic when referring to prospects for 1916. The company has recently rearranged its brick display, and is now showing large panels of brick where small displays were formerly the rule. "A good thing about present things," said Mr. Meyer, "is that things are going through with a push. Architects are not only getting work on the boards but are also rushing them to the contractors and as a result material dealers are busy signing up contracts for early spring delivery."

The main office of the Association of American Portland Cement Manufacturers is being transferred from Philadelphia to Chicago. At the present time the Extension Bureau, in charge of A. J. R. Curtis and the Cement Products Bureau, of which C. M. Wood is manager, are being operated on the fifteenth floor of the Conway building. It is believed that before the end of February the removal from Philadelphia will be completed. General Manager J. P. Beck will be in Chicago during the Cement Show and will at that time work in conjunction with his assistants in properly equipping the office.

Frederick C. Bogk, of Ricketson mineral paint fame, is one of the aldermen-at-large of Milwaukee, Wis., who has not taken out papers for his renomination. As a result, citizens of Milwaukee have started a movement which will have for its purpose, as explained by Attorney William Kaumheimer, "the task of insisting on a faithful servant being re-elected to the aldermanic body without the expense of conducting a campaign. As chairman of the finance committee of the common council Mr. Bogk has been steadfastly attempting to keep down appropriations without harassing the work of the department. He has been active in the salary revision work and that work is to be completed during the coming fall. Standing always for efficiency and economy in public affairs, he has been progressive and active in promoting movements looking for welfare of the people. He has behind him experience which makes his service invaluable to the municipality. It is hoped a sufficient number of men will interest themselves to induce Mr. Bogk to continue his service."

The Mason Lumber & Coal Co., Mason City, Ill., has been succeeded by the firm of McHarry & Sutton.

The retail business of W. H. Abbott, Burlington, Colo., has been succeeded by the firm of Abbott & Abbott.

J. F. Graham has been succeeded by the firm of Graham & Coldren, in the retail business at Brodhead, Wis.

The building material and coal business conducted by D. C. Cullen, at Nome N. D., has been secured by H. C. Wolfarth.

The retail building material business of G. Ahliff & Son Co., Grand Mound, Ia., has been secured by the Eclipse Lumber Co.

C. M. Walker has located his office in the Realty building, Louisville, Ky., where he is handling a line of builders' supplies.

The property of the Crescent Supply Co., Whiteburg, near Oskaloosa, Iowa, was destroyed by fire on January 20, with a loss of \$20,000.

Jotham Post has secured the retail building material and coal business conducted at East Williston, L. I., by the late W. W. Titus.

A. Williams has taken over the interest of his partner, Henry Hart, in the Hart-Williams Co., a building material firm of San Jose, Cal.

The Boise-Payette Lumber Co., of Boise, Idaho, has purchased the business of the Crain Lumber & Coal Co., at Ashton and St. Anthony, Idaho.

The convention was one of the most successful in the history of the association and showed a membership of 277 in twenty-three towns and cities.

The Maryland Milling & Supply Co. has recently been organized at Sykesville, Md., and has taken over the business of the Sykesville Lumber, Coal & Grain Co.

Johnson & Ritz has been succeeded in the retail coal and building business at Napoleon, Ohio, by the firm of Krause & Newell, composed of L. P. Krause and C. A. Newell.

A warehouse used by the Rosslyn Supply Co. for storing building materials was, together with its contents, destroyed by fire at Washington, D. C., on January 17, with a loss of \$35,000.

O. S. Osborn has succeeded J. B. Badger as the proprietor of the Badger Fuel Co., El Paso, Tex. In addition to dealing in fuel and feed, the concern conducts a retail and wholesale building material business.

One of the most active members of the Kentucky state legislature at the present session is Senator Sam L. Robertson, of Louisville, who has been well known for several years as a leading concrete contractor.

Creditors have taken action in the U. S. District Court to have Wm. Dean and the Dean Building Material Co., of San Francisco, declared bankrupt. Gladding, McBean & Co., terra cotta manufacturers, are one of the principal creditors.

The Waukesha Lime & Stone Co., of Milwaukee, Wis., was awarded the contract for furnishing the sand, gravel and stone to be used in the plant which is being erected at Otjen, just south of Milwaukee, by the American Tar Products Co., of Chicago.

A consolidation of the Beck Coal & Lumber Co. and the Harvey Coal & Lumber Co. has taken place at Harvey, Ill., which will conduct its business un-

der the name of the Beck Coal & Lumber Co. The firm has increased its capital stock from \$75,000 to \$100,000.

H. D. Wagon, of Portland, Ore., has purchased a tract of land near Weiser, Ida., on which there is a bed of silurian lime from eight to fifteen feet deep. He proposes to build a small plant for the development of the deposit.

R. E. Haldeman, manager of the Louisville office of the Chamberlain Metal Weatherstrip Co., has been transferred to the Cincinnati office, and the Louisville office at 123 South Third street, has been discontinued. The Louisville business is now handled from Cincinnati.

The Queen City Crushed Stone & Sand Co. has been organized at Cincinnati, Ohio, by James M. Sprague, Harvey T. Stinson, Thomas F. Groves, Joseph Ertel and Orville K. Jones. The company will conduct a plant near Remington, Ohio, on the Pennsylvania railroad. Mr. Stinson will be superintendent. The capital stock is \$50,000.

The recent membership campaign put on by Pittsburgh Builders' Exchange under the enthusi-



JACK F. BENTON,
Kent Mill Co., Brooklyn, N. Y.

astic leadership of Secretary E. M. Tate has brought into that association a splendid lot of new blood that is bound to make the exchange a rousing success this year. Its weekly luncheons are largely attended and splendid speakers are provided.

John C. McNamara and William H. Barnes, two widely known New York common brick salesmen, have informed the trade of their retirement from the Greater New York Brick Co. Their action followed the annual meeting of the company at 103 Park avenue this week. They will reestablish their old agencies as independent distributors, according to their present plans.

The Standard Wall Plaster Co., of Louisville, Ky., has taken out a building permit for the erection of a one-story building at its plant at 212 East Bloom street. The new building will

be utilized for handling plastering contractors' supplies. The company has been contemplating building this addition for some time.

The Dennison Clay Co., of Dennison, Ohio, has been granted a charter and is increasing its capital from \$10,000 to \$120,000.

Kittanning Face Brick Co. is increasing its output at its plant at Friedenheim-on-the-Shawmut by the erection of three new kilns. Last week's shipments amounted to twenty-one carloads.

The sales department of the General Fireproofing Co., Youngstown, Ohio, has been completely reorganized, P. R. Clark continuing as general manager of sales, with G. R. Naumann, R. N. Pretsch and W. B. Turner each an assistant with a given line to handle. L. E. Fisher will have charge of the advertising department, with the title of assistant manager, Mr. Turner retaining supervisory powers over that work.

The permanent officers elected by the new Sacramento, Cal., Builders' Exchange at the meeting Jan. 11, are: President, F. E. Connors; vice president, W. C. Keating; secretary, W. B. Scollen; treasurer, W. J. Baughman; directors: E. Hite, W. C. Keating, W. J. Baughman, F. E. Connors, I. C. Boss, W. B. Scollen, R. O. Kimbrough, H. Dixon, E. S. Warner, J. Latourette and P. J. O'Brien. The meeting was addressed by E. J. Brandon, a supervisor and member of a prominent bricklaying firm of San Francisco, and W. H. George, of the Henry Cowell Lime & Cement Co.

Joseph Tyrell, of Madison, was elected president of the Master Builders' Association of Wisconsin, at the recent annual convention of the organization held in this city. Other officers were elected as follows: First vice president, M. C. Mertz, Oshkosh; second vice president, M. G. Peters, Milwaukee; third vice president, J. P. Cullen, Janesville; fourth vice president, Sydney W. Jones, Kenosha; treasurer, H. G. Zickert, Watertown; secretary, O. H. Ulbricht, Milwaukee; trustee for three years, Joseph H. Servotte, Green Bay; hold-over trustees, H. C. Kelling, Milwaukee; Everett Schmidt, Wau-pun; president's private secretary, H. L. Geisler, Madison.

Salesmen of the Chain Belt Co., Milwaukee, Wis., were treated to a dinner on Jan. 3 in the Cream City. After the dinner the company presented William A. Heartt as the new assistant sales manager. He comes to Milwaukee from a position with the Sand Mixing Machine Co., of New York, whom he represented in Western territory for the past five years. The spirit of the meeting was to develop the Chain Belt business along lines of mutual coöperation between manufacturer and customer and by sending out trained and well-organized forces into the field to insure the highest possible grade of service. It was announced during the evening that additions to the already splendid factory facilities of the company were being made which would make possible the handling of the large volume of business which the national outlook promises.



SALESMEN OF CHAIN BELT CO. ENJOYING DINNER.

Straight Construction Ideas.

E. A. Foster, of Samuel Cabot, Inc., Boston, Mass., recently completed a very extensive inspection tour of agencies, in which he covered all parts of the country. In speaking of present and future conditions, he said:

I find many dealers throughout the country who believe in buying from hand to mouth until they determine the effects of the war's end on prices. This causes poor service to their customers and a great increase in their freight costs, as they are buying most materials L. C. L. that were formerly purchased in car lots.

One can not deny that the war has caused the price of many raw materials to advance from 100 to 1,000 per cent. Most of the increased prices for raw products, however, are caused by increased demand for same not due to war but to increased domestic consumption.

Although our prices have been advanced from 10 to 20 per cent this is not a temporary raise to cover increased cost of raw products due to effects of the war, as we manufacture most of our products in our plant. It is due to the fact that we have not made an advance in prices for over ten years and have been putting same off from year to year. The cost of manufacturing all the different products has advanced year after year without raising the selling price. Now that the prices have been advanced to where they show a fair profit in normal times they will without doubt remain at this level indefinitely.

When pressed for details, he said: To give one a crude idea of the causes of the advance in raw materials used by the plant it is well to consider the following facts: Samuel Cabot, Inc., were one of the first, if not the first, to use zinc in the manufacture of stains, etc. At that time zinc had but little demand in any line of manufacture. Up to ten years ago the paint manufacturing industry was the largest consumer of zinc white, but of late years it has been crowded out of this position. The large tire manufacturers have to use oxide of zinc in vulcanizing their rubber to make white tires. This increased business, really larger in times of peace, has caused zinc to double in price. The large manufacturer of zinc has contracted to sell to the allies their entire output for 1916, figured at working day and night. This is the cause of the different tire manufacturers putting out the black tread tire. After the war they will without doubt return to the white tire, as it is cheaper than black and I believe more durable. In fact, the end of the war will see little, if any, reduction in this product.

Greens, the largest portion of our stain business, have gone out of sight and while they come back so as to show a profit at the new prices, they will never be low enough to allow a reduction in our prices. Prussian, Chinese and iron blues are the base of greens and are manufactured from prussiate of potash, a by-product of potash, which material is controlled by Germany. The normal price of this product is from 10 to 12 cents the pound, but there is \$1 bid at present and not much offered at any price. The other main ingredient is chrome yellow, which was formerly made from bichromate of potash, but is now made from bichromate of soda, a domestic product. This, however, has advanced from 6 cents to over 50 cents the pound, with very small quantities offered at that price.

While in Savannah the other day I noticed that the new fertilizer plant was making large and costly additions, but did not seem to be selling or shipping much of their product. I found that they had paid about \$35 a ton for their potash and made only a fair margin of profit on their product, but had been offered by DuPont \$475 the ton for their potash. They were, however, holding out for a better price, and this is typical of most manufacturers, although I am glad to say many are supplying their trade and letting the profits that might have been realized go by rather than disorganize their business and treat their trade unfairly.

Reds have also greatly increased in price, especially the vermilion shades. English vermilion manufactured from mercury or quicksilver has gone up to over \$3 the pound. Quicksilver a few months ago cost about 48 cents a pound, and today there is \$2.50 bid for it.

Lampblack, which we manufacture and use in mortar colors, is made by burning a dead oil. While this is a by-product of our plant we can get more for the raw oil today than we were getting for the manufactured black. This is caused in main by the fact our navy is using this oil as a fuel instead of coal. As they will use as much oil in times of peace as now, of course this product will never return to the old prices. Oil which was once figured at 1 cent the gallon is today worth over 4 cents.

Also the cost of labor and expenses of running a factory have so increased as to make it necessary to include a higher fixed cost for manufacture. In nearly all lines if there is any reduction it will be slow and cover a period of years, so as to be almost unnoticed by the dealers.

The Scepter of Supremacy.

One of the big revolutions of commerce has transpired during 1915 which the world is only now beginning to understand. It is destined to have a far-reaching and altogether beneficial development for the industries and commerce of the United States of America, for our own metropolis, the great city of New York, has become the world's first city, the pivot upon which world traffic and the commerce of the nations revolves. In all human probability it will continue to do so for a long

period into the future, dependent upon the balances of credit, the stability of finance and the efficiency with which world problems of the tonnage traffic and the settlements of finance can be adjusted and administered.

The scepter of commercial supremacy in history has always moved with unerring precision. There has never been any turning back to previous conditions, but ever onward into new and bigger and broader commercial ideals. The great composite commercial and financial mind of this country is now developing to meet the emergencies which this magical revolution has tossed into our midst. We are really growing faster in one week right now than we did in a whole year in the decades just passed. We will rise to the occasion and take care of all the contingencies as they arise, for in the new order of things we can find nothing but expansion, a principle that has become an American habit during the past fifty years. The extension of our banking system, which was at first considered by some to be premature, is now realized to be of enormous assistance in all of the development that is right in our hands. The scepter of commerce has ever marched side by side with the development of civilization. It has no real history written as such, although the art of alphabetical writing was in-



MORRIS M. HUNTER,
Cincinnati Portland Cement Co., Cincinnati, Ohio.

vented solely for commercial purposes and only so used by the Phoenicians, who were the world's first traders, to record the beginnings of commerce. They held the lead uninterruptedly for nearly a thousand years, passing it only to Rome when that city became not only the political but also the commercial center. It moved to Constantinople, then to Venice, and next to the cities of the Hansiatic League, centering on Hamburg and Rotterdam, and for more than a century London has been supreme, enjoying all of the wealth and matchless development of the nineteenth century, the sum and consummation of all that preceded in the growth of the world's commerce. Now the shifting scenes have planted the banner of leadership and empire, in finance and commerce, in the New World, amidst a people with bigger ideals, greater resources and more wonderful possibilities than Europe affords. We, the business men of America, are now launching out of our activities as producers and merchandisers the new propaganda by which to promulgate to the world the liberal institutions that have been the foundation stones of American progress, success and importance, and so writing a new page of civilization. It introduces principles that have never had world recognition heretofore.

This big condition is here, and it is just as well that every individual recognizes it promptly in order to understand thoroughly that he is a part of that influence that dominates the world. Individually, in each man's avocation, undertaking and affairs of life, it means a bigger opportunity; incidentally a greater volume of business, and a more systematic recognition of staple values and prices of every conceivable type of merchantable commodity—usually higher values and higher prices. This principle follows down to the roots of business, because our dollar has become the world's money standard, and so takes a fixed high value for the comparison of values elsewhere in other nations. We have to get accustomed to more business, to merchandising on a greater scale and a full understanding of the higher plane of values that is pretty sure to rule for many years out into the commercial future.

Collectively, as a people, the nations of the world have to look to us to take the lead in building, architecture, art, and all the manifold developments of civilization which are the main expression of financial and commercial supremacy. Our composite commercial and financial brain is busy these days in travail, and the result that will be brought forth shall not be disappointing.

INDIANA ENGINEERS MEET.

The annual meeting of the Indiana Engineering Society was held at the Claypool hotel, Indianapolis, on Feb. 3, 4 and 5. Every session was well attended and the various topics relating to such materials as are produced and sold by building material men received the concentrated attention of the road men of Indiana.

At the same time the ninth annual meeting of the Indiana Sanitary and Water Supply Association was also held at the Claypool hotel, the dates being Feb. 2-5. The sessions held Thursday evening and Friday were jointly attended by the engineers and sanitary officials.

Material men were prominent, many having displays on the convention floor.

The Indiana Concrete Road Association had on display a model showing the economical distribution of men and materials for the construction of concrete roads. The display was in charge of Manager C. D. Franks, who was assisted by M. W. Cameron and Ethan L. Arnold.

The National Paving Brick Manufacturers' Association had on display samples of the various pavers used in Indiana and illustrations of successfully built brick roads. A map of Indiana showing the location of paving brick plants was also on display. The display was in charge of H. H. Macdonald, assistant secretary of the association.

C. M. Wood, manager of the Cement Products Bureau of the Association of American Portland Cement Manufacturers was kept busy extolling the virtues of concrete pipe and tile to the engineers.

George S. Hird, assistant sales manager of the Mitchell Lime Co., was very much interested in both the engineers' and water supply men's meetings. The subject of water softening is one which Mr. Hird has given considerable study and one on which he likes to talk.

Charles E. Cheney was one of the popular engineers in attendance. When it became known that he is a candidate for county surveyor of Marion county added interest was centered upon him.

SEND IT IN.

Whenever anything comes up around your office or yard that might do good if passed along, write it up and send it in to the editor. Hundreds of things that ought to appear in trade papers for the benefit of all the dealers never get into print. Little incidents, short cuts, labor-saving devices, comments on trade abuses, etc., make interesting reading matter. It won't hurt you a bit to have your name in print. It makes you stand higher in the trade and it helps to make you feel a bigger, better and broader dealer. Send it in.

Referendum on Maintenance of Prices.

Washington, D. C., Feb. 6.—The board of directors of the Chamber of Commerce of the United States has voted that the report of a special committee of the national chamber on the maintenance of resale prices shall be submitted to referendum. The committee had reported to the board that it was not able to present a unanimous report.

There are ten members of the committee. Its chairman is Paul T. Cherington, a professor in the Harvard Graduate School of Business Administration. The reports of the different groups of the committee cover something like nineteen printed pages, and have seventy-five pages of appendices.

A majority recommendation favoring legislation permitting price maintenance was signed by seven members, two of them, however, modifying their assent by filing a supplementary report. With the majority report came the comment that a national chamber committee had rendered a report last February favorable to the principles of price maintenance and the majority members saw no reason in any way to modify the conclusions arrived at and given to the Chamber at that time.

Back Up Report Favoring Price Maintenance.

"But on the contrary," the comment continued, "after additional exhaustive investigation by consulting a large number of organizations, composed of many thousands of members in all branches of trade and industry, as well as many individual producers, distributors and consumers, and after having collected evidence from a great many sources, we repeat the language of the committee's previous resolutions of February, 1915, as our report and conclusions, viz:

"Your committee is convinced that legislation permitting the maintenance of resale prices, under proper restrictions on identified merchandise, for voluntary purchase, made and sold under competitive conditions, would be to the best interest of the producer, the distributor and of the purchasing public, or consumer."

Federal Trade Commission Aid Suggested.

The supplementary report signed by two members, who also signed the majority report, recommended that injurious price cutting be included within the scope of the jurisdiction of the Federal Trade Commission over unfair methods of competition.

Three members of the committee—Frank H. Armstrong, of Chicago, a wholesale grocer, president of Reid, Murdock and Company; Frederick H. Rike, of Dayton, president of the Rike-Kumler Department Store and president of the Greater Dayton Association, and Percy S. Straus, of New York, of R. H. Macy and Co. and president of the New York Retail Dry Goods Association—presented a minority report "unable to approve of the principle of price maintenance as being in the public interest." They recommended, therefore, that no legislation on the subject be enacted at this time. Those signing the majority report were: George M. Courts, of Galveston, Texas, formerly president of the National Association of Stationers; James F. Finneran, of Boston, president of the Woodward Drug Co.; Henry B. Joy, of Detroit, president of the Packard Motor Co.; Paul H. Nystrom, of New York, a retailing expert; F. H. Whitcher, of Boston, president of the American Shoe Tip Co.; Edward S. Rogers, of Chicago, a lawyer and a copyright and trade-mark authority, and Professor Cherington.

Advantages Argued for Price Maintenance.

Conclusions of the majority are that the advantages of price maintenance are partly economic and partly social.

1. A properly regulated system of price maintenance on identified merchandise made and sold under competitive conditions puts the emphasis in competition upon quality and service, while at the same time, it provides for the public adequate protection against extortion.

2. Price maintenance under these conditions preserves the social advantage of an adequate incentive to invent and devise new products.

3. Price maintenance under these conditions serves to prevent monopolistic control of production processes by powerful distributors.

4. Price maintenance under these conditions preserves the social advantages of such distribution conveniences as are represented by neighborhood stores

and by small, but skillful merchants. In some trades, it is the sole guarantee of the preservation of the accepted system distribution. For instance, it assures the preservation of the book stores as individual enterprises. If the social value of such factors as these is less than their economic cost they are not worth preserving. But who is ready at this time to encourage their annihilation? It is noteworthy that the agitation in favor of restoring to producers the control of resale prices originated with the small, independent retailers, and that most of the opposition to it comes from the large and powerful retail concerns.

5. The right of the producer to set resale prices is an accepted principle of business law. It has been restricted recently in this country by close decisions of the Supreme court, none of which was decided on the basis of general principle alone. The committee believes that in the long run the public interest will be best served by legislation specifically permitting this method of doing business in identified articles made and sold under competitive conditions.

Proposed Federal Trade Provisions.

Signing the supplementary report were Mr. Rogers and Professor Cherington. It proposes to insert in section five of the Federal Trade Commission act in statutory language provisions which will have the following effect:

In regard to products that are identified in their sale to the public by name, brand, or trade-mark—and that are made and sold under competitive conditions: No merchant, firm, or corporation shall offer such articles for sale at a price other than that stipulated by the producer for the original sale



B. L. SWETT.

Lehigh Portland Cement Co., Allentown, Pa.

of the articles at retail (provided the producer has given due notice of such price to the retailer by mark upon the article or otherwise), with the purpose or effect of (a) making it unprofitable for other retailers to handle said articles; (b) promoting the sale of a substitute or imitation; (c) attracting trade away from competitors, where the result is to injure the reputation of said articles or the goodwill of their producers or materially to impair the general distribution of said articles.

While the work of the committee has been confined in its instructions to identified merchandise, it believes that the principle involved in this recommendation is capable of extension to a much wider field and that the predatory cutting of prices on merchandise in general has been and is a favorite method of oppression on the part of unfair business to destroy small competitors and local producers, and that legislation could very properly define such practices as an unfair method of competition.

Oppose Federal Legislation.

With the formal report which makes its adverse recommendation in a space of four lines, the minority filed an explanatory statement. They take the

ground that the recommendation of the majority is directly contrary to the conclusions of federal and state courts on matters of principle, that the right to fix resale prices supposed to exist for a short time was never understood to exist except as an incident to patents, and that anti-trust provisions in the constitutions and laws of twenty-nine states indicate a policy expressly inconsistent with the idea of maintenance of resale prices. The minority dwell upon the importance of trade being "unhindered and unshackled by the requirements or commands of any men, or combinations of men, or any systems whatsoever," recalling the well-known principle of the common law that there could be no valid restrictions governing the transfer of articles of trade from hand to hand. Finally, they take the stand that legislation legalizing price maintenance will give rise to a situation such that it will become difficult for men who seek to enter manufacturing and small merchants to establish themselves.

With the minority report, as with the majority, a brief of the law as interpreted by this side is printed.

Business Men Will Welcome Tariff Commission.

Washington, D. C., Feb. 3.—Concerning the announcement contained in President Wilson's letter to Claude Kitchin, majority leader of the House of Representatives, John H. Fahey, president of the Chamber of Commerce of the United States, says:

The statement of the President's position concerning the need of establishing an absolutely independent non-partisan tariff commission will be received with great satisfaction by the business men in the United States. The sentiment of business men in favor of such a commission has been almost unanimous for years, because of the general disturbance of business which has usually attended the making of our tariffs under the system which has prevailed until now.

At its first annual meeting the National Chamber went on record for the establishment of such a commission without a dissenting vote and to insure the fullest possible consideration of the project by all the organizations in its membership this was followed soon after by a referendum to all the members. The result of this was a vote of 715 to nine in support of the commission idea. At each succeeding annual meeting the proposal of a commission has been endorsed and on each occasion without a single dissenting vote.

The National Chamber has meanwhile persistently agitated for this reform and within the last year continued its efforts with renewed energy. In recent months the commission plan has also been endorsed by the more prominent agricultural organizations and by the American Federation of Labor. The Tariff Commission League has likewise lent its aid in advocating action. This general consensus of opinion representing all of the great economic interests of the country surely warrants the action on the part of Congress which the President has now so emphatically recommended in his letters to Congressman Kitchin.

The sooner Congress can pass a carefully drawn measure along the lines of the president's suggestions the better the business men of the country will like it. What the commercial interests and all other interests in the country most want to aid them in the promotion of national progress is stability of conditions. While they do not regard a tariff commission as a cure-all by any manner of means, they certainly consider it as a piece of machinery much needed and one that will be the powerful influence for good in our future development. It is to be hoped that the commission will be given adequate powers, that its permanency will be assured and that the necessary industrial facts which it can bring out will be put before the country and Congress so plainly that they will be understood by all classes of citizens.

REPAIRING PLANTS AND INSTALLING MACHINERY.

Pittsburgh, Feb. 3.—The stone quarries are very quiet at present throughout this district. Most concerns shut down in December and are spending the winter in repairing their plants and installing new machinery. The demand for bridge stone promises to be very much better than last year, for the railroads have largely increased their appropriation for bridge construction. It is thought that there will also be a better demand for road stone, although the situation in this respect in Pennsylvania is still considerably of a gamble.

The RETAILER

Advancing Markets On Every Hand

Hesitation is indicated in our trade correspondence as to what effect a sudden termination of the European war would have upon American business, and particularly upon the prices of staple commodities. Another angle of the same expression queries the likelihood of our country becoming involved in the hostilities, and what effect that would have upon the prices of building materials and the progress of permanent improvements of all kinds. This half-expressed uncertainty without a doubt comes from those who are now in the market for supplies, or who will very soon have to do some stocking up.

From the most reliable and conservative information that we are able to secure, there are no physical signs of weakening on either side of the European battle lines. Both the central powers and their allies and the entente powers and their allies express confidence and a determination to prosecute the war, and both sides have the means, the equipment and the men with which to back up such resolutions. It is safe to estimate that the war will continue throughout the present year, or at least the conditions attendant on the war will remain unchanged for another year. Even though a miraculous convention should occur, whereby all of the belligerents should decide voluntarily to lay down their arms and compose their differences by arbitration, it would take much longer than a year to readjust the established war conditions of commerce now prevailing. It is next to impossible that we should become seriously involved, because as a people we are not in sympathy with any such idea, and the belligerents are all steadfastly opposed to offending our nation.

The values, price levels and conditions in this country cannot be noticeably changed, therefore, by any unexpected denouements, all of which must be of minor significance.

The steel mills of France, Germany and England have been out of business for eighteen months. The properties are dismantled, destroyed or else converted into war specialty establishments, not useful for commercial purposes.

The big Portland cement output of Germany, England, France and Belgium are out of commission. The plants have been damaged considerably and their organizations scattered and lost.

Colors, dyestuffs, basic metals of every kind can not be produced until the processes of reorganization have been completed.

A new system of finance will have to be arranged and new basis of credit worked out, under conditions which European manufacturers hitherto have never known. The old basis of European industrial financing has passed away forever with the heavy expenditures of the various governments in connection with the war. The rate of interest will have to be about doubled on account of the government's need for money at a higher rate than industrial paper formerly paid.

There can be no such thing as a general mustering out of the regiments, as some people seem to think, followed by a universal return to the vacated shops and mills, for each man to find his tools right where he laid them down, and so go to work for the same old concern, at the same old pay, in the same old way. Mostly the old shops will not be found

where the recruits left off work. Even if such could be the case, a reorganization of the firm will be necessary to begin business on a new basis, to find new customers, before the new orders can create a volume of business to set the shops to going again. These things are not done in a day, but in months and years of patient reconstruction. The men in the battle trenches will come with different ideas than they had before, with reference to the basic organization of society and their part in it, and this of itself will constitute a problem that will take a longer period of time to adjust than it did to fight out the war.

American manufacturers of steel are confronted with a shortage amounting to fully 50 percent of the world's supply, which creates a condition that cannot be materially changed for three years. This is a pretty good guarantee that steel products will advance rather than decline throughout the whole period of three years.

Portland cement, by the same token, has got to be steady as a clock, for in this country we have practically the world's total available supply, barely half of the world's average consumption. While at the present merchant ships are well-nigh excluded from the high seas on account of commerce raiders and illegal aggression of sea power, there is very certain to be a tremendous foreign demand for American cement as soon as it can be delivered in safety. For this reason any sudden closing of hostilities, if such a thing could be possible, would promptly advance the price of cement by unprecedented foreign bidding for the product of American mills.

Such a condition is sure to come whenever present naval hostilities cease or our government succeeds in gaining full recognition and protection of neutral merchantmen out of the present demands upon the belligerents for the freedom of the seas. The success of American diplomacy in this respect will tend to boost prices upon all of our products now in export demand.

Lampblack, the great basic material for paints and coatings, is an oil product, and oil has just been adopted by our navy for fuel instead of coal, calling for a tremendous consumption of oils never before considered for a product already confronted with the same kind of a shortage as prevails in other staple lines. This great volume of the new uses is in no way dependent upon the war, so that the advance that has come in oil and oil products of every kind will be sustained for a long time after we have forgotten the war conditions.

Generally speaking, the price levels of American manufactured commodities tend to rise rather than to decline, and coming particularly to the consideration of staple building materials: Portland cement, lime, plaster, steel products, oil products, paper, paper roofing, fibre products, coatings and colors, clay products and fireclay products, all alike are confronted with conditions that would naturally tend to advance costs and consequently the selling prices. There should be, consequently, no hesitation with regard to promptly laying in liberal stocks as early as possible of all of these goods.

Forgetting the war, let us take another view: All products are promptly affected by labor conditions. The labor shortage of last year can only be repeated again, and wages in nearly every trade

have been advanced and other advances are imminent or expected, so that the labor cost is sure to be higher. This element of cost is always reflected in the price of coal, another factor in the production of all of the goods that the dealer handles.

Transportation, most briefly described, is demoralized. The railroads failed to order their usual quota of box cars for two years or more, and they are confronted with a condition of congestion and blockade of the great yards at the seaboard which has not been relieved all winter. The roads are short of rolling stock for the winter requirements of freight movement. Car shops cannot supply new cars in noticeable quantities. If double the number of cars that are in existence were available the roads would scarcely be in a position to handle the expected rush of spring tonnage that is in the calculation right now. Lacking the cars, the roads also lack the additional qualified help to handle the trains in the yards, and motive power of the railroads is well nigh as deficient as the rolling stock. It is going to be a tremendous problem for the railroads to give anything like a partially satisfactory service during the normal spring period of activity. Less than carload shipments will be the worst feature of the demoralized condition of deliveries right ahead of us.

The inadequacy of railroad equipment and the limitations of railroad management were never so apparent as at the present time. The only remedy is to order adequate supplies of needed materials early enough to get ahead of the main rush.

The builders of machinery and equipment for labor-saving mechanical devices of every kind are working overtime where they can get the help, and, confronted with steady advances of structural steel, are doing all they can to serve their trade.

Manufacturers in many staple lines are sacrificing profit and in many cases actually absorbing heavy losses in order to keep the established selling price of their goods in the hands of their trade and the customers satisfied until the element of war disturbance disappears. This policy is being practiced to a much greater extent than many people would suppose.

New Englanders Await Feb. 24.

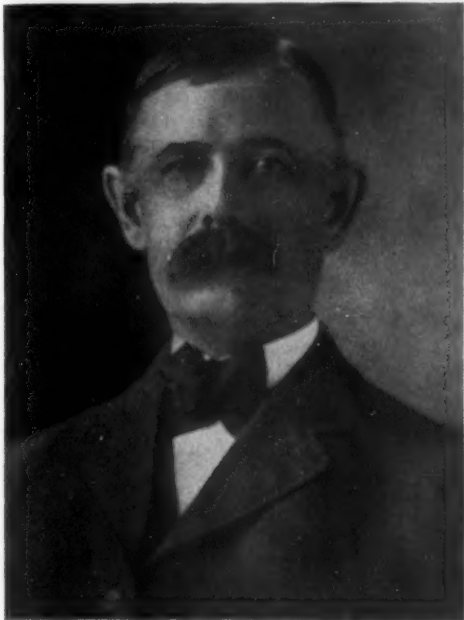
The New American House, Boston, is the place for holding the sixth annual meeting of the New England Builders' Supply Association, Feb. 24. A good attendance and a lively interest in the program arranged is expected by R. H. Whitney, who, with President C. M. Kelly, has been active in the arrangements. The topics include "Coöperation," "How to Increase Membership," a report on the project of employing a traveling secretary and other matters of interest to a live, up and coming association.

The officers of the association are: President, Charles M. Kelly, of the J. C. Goff Co., Providence, R. I.; vice president at large, R. H. Whitney, of the B. F. Marsh Co., Worcester, Mass.; secretary, F. H. Kingsley, of the Borden & Remington Co., Fall River, Mass.; treasurer, S. F. Hammett, of the Taunton Teaming Co., Taunton, Mass.; vice presidents, C. F. Purinton, of Purinton Bros., Augusta, Me.; J. J. Whalen, of Strong Hardware Co., Burlington, Vt.; E. A. Wilson, Lowell, Mass.; George E. Shaw, of Olney & Paine, Pawtucket, R. I.; E. H. Palmer, of Stamford Mason Supply Co., Stamford, Conn.; and A. S. Brown, Manchester, N. H.

The N. B. S. A. of Today.

Industry plus coöperation equals prosperity. And a prosperous and healthy individual is the N. B. S. A. today.

The records for the past year show that there have been added to the roster of the association during that time over 140 new members, and if increased membership is used as a basis for figur-



CHARLES M. KELLY,
President, New England Builders' Supply Association.

ing the success of the organization, the conclusion is reached that it indeed has had a most successful year.

Aside from this matter of increased membership, however, is another feature, and that is: "What has the association done to merit this new blood, and what promise does it hold out for the future? Does it propose to go along and assist the dealer to cope with the many problems of the day? Is it going to help him to get better prices for his materials, or rather furnish some method whereby he will be educated to the point of selling his products on a safe margin? Is it going to provide ways and means for the prompt collection of the dealers' accounts, thereby enabling him to compete with the mail order houses of today, all of which are conducting their business on a cash basis?"

These and a good many other similar questions could be put forward, and the answer to all of them would be YES, and why? Simply because the National Builders' Supply Association is in a position today to do all of these things, and will eventually accomplish the same.

They have started a work in the state of Indiana where more than 100 new members have been enrolled during the past six months, the plan of which will furnish the topic for the main discussion at the convention. This plan provides for state divisions of the National association. Each state is then divided off into districts, and these districts are active little working bodies, meeting each month and providing ways and means for all of the dealers in their territory to get together, to learn what is transpiring within their confines and putting each and every member in the position where he learns to acquire that something which is ever necessary for the successful conduct of his business, namely, confidence in his fellow man.

EXCHANGES OF NATION TO MEET.

The fifth annual convention of the National Association of Builders' Exchanges will be held at Balti-

more, Feb. 22, 23 and 24, and will be preceded by a conference of secretaries on Feb. 21. It is believed that this convention will be the largest gathering of builders ever held. The Baltimore contingent has planned a royal entertainment and appointed various committees to see that every convenience and comfort is given those in attendance.

Del-Mar-Col Dealers to Meet.

The annual meeting of the Del-Mar-Col Builders' Material Dealers' Association will be held at the Emerson hotel, Baltimore, Md., on Tuesday and Wednesday, Feb. 22 and 23.

This will be the first meeting of this association extending into a two-day period and shows the development made by the organization of retailers located in the states of Delaware and Maryland and the District of Columbia. The first session will be held Tuesday morning at 10 o'clock and will be continued until luncheon at 1 o'clock, which will be followed immediately by an afternoon session. Believing that the work before the association can be finished before noon on Wednesday, the last session will be called at 10 o'clock that morning.

While the Del-Mar-Col association is small in numbers it draws to its various meetings a large percentage of the men engaged in the building material business who are affiliated. These meetings are likewise attended by a large number of associate members or manufacturers' representatives. According to Secretary J. Gason Steffey, the coming meeting will be full of interest to both active and associate members.

It behooves every man engaged in the retailing of building materials in this district to become affiliated with this association. President B. L. Grove and every member of the organization will be glad to give visiting dealers a hearty welcome and are urging retailers to attend the coming meeting in large numbers.

WHEELING PREPARES FOR RETAILERS.

Plans for the third annual convention of the West Virginia Lumber and Builders' Supply Dealers' Association are being completed through the work of the officers of the association and local members residing in Wheeling, at which place the convention will be held on Friday and Saturday, Feb. 18 and 19. Con-



W. E. MINTER,
President, West Virginia Lumber and Builders' Supply Dealers' Association.

vention headquarters will be at the Hotel Windsor.

This is the first time the association will have met at Wheeling and members of the industry residing at that place are leaving no stones unturned in an effort to make this the biggest and best meeting the association has ever held. Recently a meeting of the Wheeling dealers was held in the office of W. A. Wilson Lumber Co. for the purpose of outlining a program and plans of entertainment. G. W. Moss-



B. L. GROVE,
President, Del-Mar-Col Builders' Material Dealers' Association.

man, a director, and Secretary G. J. Dickerson, of Huntington, met with the retailers and the result of the day's work will be shown at the coming sessions.

It is expected that about 200 members will be in attendance, and a rousing meeting is assured. Friday, the first day of the convention will be taken up with business sessions and getting acquainted. On Saturday, open meetings with good talks will consume the greater part of the day. Then, on Saturday night the greatest banquet Wheeling has ever known will be held.

Messrs. Mossman and Dickerson intend making a trip to all of the leading cities of the state on a campaign for new members and working up interest in the Wheeling convention.

At the Wheeling meeting the following committees were appointed by W. H. Kleives, chairman of the local committee:

Entertainment committee: Geo. W. Lutz, Wm. P. Wilson, R. W. Marshall, Harold W. Becker, W. W. Scott, F. P. Jones and George W. Stephens.

Finance committee: W. H. Kleives, Harold W. Becker, H. L. Seabright, John W. Belts, Jr., Walter Armstrong, Louis Fischer and Joe Moss.

Reception committee: Fred W. Mahan, W. P. Wilson, Geo. W. Lutz, C. J. Chapman, W. W. Scott, L. B. Wilson, Geo. A. Bailey, Clyde D. Coffman, B. F. Hodgeman, W. F. Gibson, N. W. Pogue, M. N. Cecil, W. P. Burruss, Geo. W. Stephen, L. W. Pickett, Roy Hyer and John George.

Program committee: A. A. Wilson, J. J. Minckmyer, Fred W. Mahan and Gustav W. Leive.

Registration committee: A. A. Wilson and Harold W. Becker.

R. W. Marshall, president of the Wheeling Wall Plaster Co., is devoting a good part of his and his employes' time in boosting the coming convention. He has emphasized the fact that the meeting is bound to be the "best ever." At the same time he and other Wheeling retailers intend to show members throughout the state "why Wheeling is the leading city of the state and expects to continue so."

"Masons Mix."

Great Improvement Introduced by the Cleveland Builders' Supply Co.

Mixing mortar by hand on the job for brick-laying in winter is accomplished by many unusual difficulties.

Sand is usually frozen solid and has to be dug out and thawed before it can be screened and used. The methods employed are, as a rule, very crude and there is no certainty that the frost is entirely driven out. These contained frost crystals often cause trouble later when warmer weather comes by bursting out the mortar between the bricks, or by causing expansion cracks in the masonry.

In addition to thawing the sand, it is necessary to take the chill off the water, as cement will not dissolve readily in ice cold water. If the cement is not thoroughly dissolved it cannot coat all the sand particles and produces a mortar that is "poor," or "short," and one that does not have the maximum strength.

In order to overcome the difficulties met by the mason in the winter time and to provide him with a prepared or mill-mixed mortar that has many advantages for all the year around, the Cleveland Builders' Supply Company has developed "Masons' Mix." It is claimed for this material that it is composed of one part of Portland cement to three parts of sand, with an addition of 10 percent hydrated lime to the cement. The sand used is the famous Pelee island sand; it is thoroughly dried and screened at their mill. Then the dried sand, cement and lime are mixed in specially constructed mixers under the supervision of expert superintendents, and according to formulae which they have worked out successfully after many practical tests.

This material then is put into strong jute sacks, each containing 100 pounds. It is delivered to the work, ready for use, requiring the addition of water only.

In alteration work and jobbing the utility of Masons' Mix is apparent to every mason and on larger operations it especially recommends itself to the contractor for its convenience.

A New Line of Staple Products.

The Northern Granite & Stone Co., with offices at 808 Leader-News building, Cleveland, Ohio, has been organized by W. P. Hurst and associates to commercially provide for the delivery of granite paving block, crushed granite and fine granite screenings and to more efficiently take care of the increasing demand for these indispensable products in Cleveland and other cities and towns throughout the adjacent territory. They will also handle Bedford limestone, in shapes, quantities and dimensions to meet the specifications of building work. This is a special line of materials which has never before been efficiently handled in any of the lake ports or throughout a very wide territory tributary thereto.

Mr. Hurst, the president of the new concern, for a number of years in connection with his building material business, has developed a very large trade in these lines, and his quarry and producing investments and connections have been very carefully selected to secure the delivery of the very highest grade that modern discriminating specifications in paving and concrete work require. It may be truthfully said that Mr. Hurst is an expert in aggregate materials. His entire experience has given him the broadest possible view of the whole field, and he not only knows the market, but the relative values of aggregate materials in practice. Slag was the first aggregate material that he handled in the Cleveland market, more than nine years ago, introducing that material as new product for concrete purposes. Since that time his extensive developments and remarkable success with Pelee

Island sand and gravel, and his operations for several years in the Cleveland Material Co., constitute one of the largest aggregate operations in the country.

Very early in his operations Mr. Hurst recognized the demand for granite products and began systematically to supply the trade in these lines. He thoroughly investigated the great Wisconsin and Southern granite districts and for many years has moved very heavy tonnages of granite materials, for paving purposes. As soon as the excellent granite pavers became available from the territory of the Thousand Islands, near the outlet of Lake Ontario, he was the first to invest and make connections of a permanent character. He has built a name and reputation not only in the Cleveland market, but throughout northern Ohio, as the most dependable source for obtaining deliveries of these special materials, ordinarily difficult to locate and hard to secure.

In a recent conversation, Mr. Hurst said: "Crushed granite chips and fine stuff are steadily increasing in specifications for all classes of city concrete work, such as park structure, bridges, and the innumerable concrete articles that are so much



WINFIELD P. HURST.
President, Northern Granite and Stone Co.

in vogue as the permanent ornamental and utilitarian adjuncts of modern improvements. The specifications for granite paving blocks constantly call for the hardest varieties of granite, and while we have always endeavored to take care of all the business that came along, I have realized that it was altogether possible to create one dependable establishment in Cleveland that could more efficiently take care of the production and delivery of these products, with profit to all parties concerned."

So the organization of the Northern Granite and Stone Co. is the outgrowth of a recognized development of demand, which the presiding genius of the new company has nursed and built up from its infancy. In order to have a full line, beside the Wisconsin and St. Lawrence river red granites, southern gray granites of several shades have also been included. Bedford stone for the regular building trade is a commodity which Mr. Hurst recognizes can easily be developed into a staple article.

At the building show in Cleveland, this concern has provided one of the most unique, interesting and practical exhibits that the whole show contains. All of those who are interested in these products will have the opportunity of accumulating considerable education on a comparatively new subject.

Branch Managers' Convention Great Success.

The period of Jan. 25 to 28 was a notable one for the Trussed Concrete Steel Co., as it marked the first annual convention of the branch managers held at the main plant at Youngstown, Ohio. Men gathered from every section of the country to co-operate in forming improved methods which would render greatest service to their clients. Not only every section of the country was represented, but representatives came from far distant countries, including Japan, Hawaii, South America and Porto Rico. Fully 100 men were in attendance.

The general program of the convention included business sessions every morning and afternoon. Julius Kahn, president, gave the opening address, followed by an interesting talk and discussion on "Shop Practice," by T. H. Kane, manager of works. The noon recess was devoted to a thorough inspection of the manufacturing operations with a competent corps of guides to explain all the details.

The subject of "Steel Sash" was ably handled by P. M. Louwerse, manager of the sash department. Many interesting points dealing with the manufacturers of the various types of sash were brought out, as well as information on stock sash, semi-stock sash and to-order sash. The branch managers entered into the discussion vigorously and told of their experiences in various parts of the country.

On the subject of "Reinforced Concrete" many interesting points in regard to design, systems of construction and local requirements were brought out. R. D. Snodgrass, chief engineer, talked on "Engineering Practice," and B. J. Sigmund, Philadelphia manager, on "The Commercial Value of Engineering Service," and Hermann Fougner, New York manager, on "Experiences with Reinforced Concrete."

The subject of "Hy-Rib" and metal lath brought out interesting papers and discussion. Among these were "Metal Lath," by J. Earle Heber, former Los Angeles manager; "My Method with Distributors," by Louis Baum, Kansas City manager; "Concrete Pavements with Armor Plates for Protecting the Joints," and "Kahn Mesh Reinforcement," occupied one of the morning sessions under the leadership of John Bowditch, manager of the highway department. O. W. Chaffee, manager of the credit department, spoke on "Credits and Collections."

The business sessions were so active at all times that it was found entirely impracticable to cover the entire program which had been planned so that a number of important discussions had to be postponed until another session. The convention closed on Friday afternoon, with a talk on general subjects, by Gustave Kahn, general manager of sales.

A complete program was also planned for the evening's entertainment. On the opening night, special motion pictures of Oregon views were given by J. A. Currey, Portland manager; also an address on "History and Growth of the Company," by M. Goldenberg, Michigan manager, followed by a buffet luncheon.

On Wednesday, a banquet was given at the Hotel Ohio. The banquet hall was specially decorated and arranged for the occasion, special company songs were rendered and many interesting toasts responded to. T. W. Murray, associate manager of sales, was the toastmaster of the occasion.

The next evening was "Trussed Concrete" night at the Hippodrome theater. Curtains carried banners of welcome, and all the actors had been coached to make special reference to the event and poke fun at the individuals in attendance. After the performance a buffet luncheon was served in the grill room of the Hotel Ohio.

Every man in attendance spoke enthusiastically of the value of the work done at the convention, and carried away with him many new ideas which would be helpful to his clients in his territory.

2,000 Retailers at Southwestern Convention.

The annual three-day convention of the Southwestern Lumbermen's Association, attended by about two thousand retail lumbermen and building supply dealers, was held in Kansas City, Mo., Jan. 26-28. The business sessions of the conference were held in the Colonial ball room of the Hotel Muehlebach—Kansas City's newest big hotel—and Convention Hall was given over to exhibits by lumber firms and associations and building material manufacturers. This year's convention was the twenty-eighth annual session of the association and, because of returning prosperity in the building material business, was by far the largest ever held.

The keynote of the gathered building men was that 1916 would be a big year. This was evidenced at the opening of the convention by John H. Kirby, millionaire lumberman of Houston, Tex., and the representative of the southern yellow pine industry.

"I look for a prosperous period for the manufacturers of lumber and building materials to continue not less than four or five years," he said. "At the present time manufacturers are enjoying reasonable prices, after a depression since 1907, because supplies are not equaling the demand."

The Southwestern association has its membership in Missouri, Kansas, Arkansas and Oklahoma and has on its lists something more than 1600 lumber and supply dealers. However, the attendance at the convention was largely in excess of that number.

The business sessions, after the annual addresses of the president, the secretary and other officers, was given over largely to discussions of trade advertising, agricultural betterment throughout the Southwestern district and consequent better business for building materials, and the prevention of waste in manufacture and selling. In all of these, the lumber men stand together with all other building material men. Advertising their products, various speakers said, would mean heavier sales in all lines. Better agricultural conditions would result similarly and the prevention of waste would have as its outcome more profits and a greater stability for the entire building trade.

In his address President J. E. Marrs laid special stress upon the success building material men have had in their advertising campaigns in the trade press.

The convention had for its speakers on advertising and agricultural lines, such men as George E. Farrell, in charge of boys' and girls' club work for the department of agriculture; J. M. Phillips, Greensburg, Kan.; Hugh McVey, advertising counselor, Des Moines, Ia.; E. A. Sterling, Chicago; Merle Thorpe, department of journalism, University of Kansas; J. B. Powell, instructor in advertising, University of Missouri; L. C. Boyle and Judge W. T. Bland, of Kansas City.

The convention adopted resolutions calling upon retailers everywhere to foster the growth of community spirit in the smaller towns, and particularly to make the dealer in such towns the center of all building activities, in support of the Stevens bill now pending in congress to make prices uniform on standard trade-mark goods, asking that the liens laws of Kansas and Missouri be not changed, and against false advertising.

The election of officers resulted in the naming of John Atwell, Chillicothe, Mo., president; F. D. Bollman, Leavenworth, Kan., first vice-president; F. J. Gentry, Pond Creek, Okla., second vice-president, and L. R. Putnam, Fayetteville, Ark., third vice-president. The directors are, L. L. Seibel, Kansas City; E. C. Abernathy, Joplin, Mo.; J. J. Rhodes, Council Grove, Kans.; F. A. Amsden, Wichita, Kans.; J. E. Marrs, Oklahoma City, Okla., and J. W. Trieschman, Paragould, Ark. The directors then elected J. R. Moorehead and J. H. Foresman, both of Kansas City, as secretary and treasurer.

The convention brought forth a large number of exhibits by building material companies. All of these were in Convention Hall.

Among them were the Ash Grove Lime & Portland Cement Co., Kansas City; the Bonner Brand Portland Cement Co., Kansas City; the Coen Building Material Company, Kansas City; the Continental Portland Cement Co., St. Louis; the Dewey Portland Cement Co., Kansas City; the W. S. Dickey Clay Manufacturing Co., Kansas City; the Farley & Loetscher Manufacturing Company, Dubuque, Ia.; the Fredonia Portland Cement Co., Fredonia, Kans.; the Humboldt Brick Manufacturing Co., Humboldt, Kans.; the Harbison Manufacturing Company, Kansas City; the Kansas City Portland Cement Co., Kansas City, Mo.; the Kansas Cement & Material Co., Kansas City; the Kansas City Silo Co., Kansas City; the Monarch Cement Co., Humboldt, Kans.; the Western States Portland Cement Co., Independence, Kans.; the Stewart-Peck Sand Co., Kansas City, and the Patent Vulcanite Roofing Co., Kansas City.

MATERIALS DISPLAYED AT DAYTON.

Handlers of building materials of all sorts were very much in evidence at the Dayton, Ohio, Industrial Exposition, held during the latter part of January in the big new seven-story "Delco" building. The Atlas Portland Cement Co. displayed in its booth the various processes involved in the manufacture of cement; T. D. Eichelberger's Sons showed some of the rubber roofing, shingles and wallboard made by the Philip Carey Co., of Cincinnati; the McGeevy & Ordman Co. featured a display of Medura pure white cement, a handsome portfolio made of this material and weighing 9,900 pounds, being the center of the exhibit; the Dayton Builders' Supply Co. had a comprehensive line of materials, with a miniature fireproof residence as the chief feature; the Elaborated Roofing Co., of Chicago, was represented through its Dayton branch with a display of its roofing materials. Schaeffer-Gengnagle & Co. showed Century asbestos shingles, as well as a line of pressed brick, metal lumber, Crescent Portland cement and Heppes asphalt shingles. The Ideal Washed Gravel Co. showed the various kinds of products which it handles, and the Gem City Brick Co. featured in its booth the National Fireproofing Co.'s "Bateco" material, the booth being constructed of brick.

"G-F" AGENTS TO MEET.

The annual convention of the agents of the General Fireproofing Co. will be held at Youngstown, Ohio, on Feb. 14, 15 and 16, just preceding the N. B. S. A. at Cleveland. From present indications this will be the best attended meeting of any held by the company. The program will also be more elaborate. The agents will get more out of it in the way of helpful suggestions from brother agents. The spirit of the convention will be "for the agent."

Suitable headquarters for the hundreds of representatives who are expected to attend will be made at the plant of the company. It is believed that, with the big features at Cleveland, this meeting will have added attraction. Youngstown is but one and one-half hours' journey from the "Sixth City."

FRESNO RETAILERS DINE.

The Fresno, Cal., Material Dealers' Credit Association had a banquet at the Hotel Fresno on the evening of Jan. 24, having as guests H. B. Potter, president of the Los Angeles Building Material Dealers' Association, and Leland W. Cutler, of the bond department of an insurance company. The former addressed the meeting on the subject of "Coöperation," and the latter on "Bonds." The banquet marks the completion of the association's first six months' work, during which it has grown from a membership of fifteen to over fifty.

MODEL WAREHOUSE FOR SPRINGFIELD, MASS.

The Springfield Contractors' Supply Co., of Springfield, Mass., recently completed a large warehouse which is said to be a model for New England for storage and handling of building materials. It has a spur track on one side and a wagon track on the other, and a loading platform which permits of direct transfers from cars to drays, also. The company handles building materials, metal lath, cement, lime and plaster, under the management of John Driscoll.

NEW INCORPORATIONS AND VENTURES.

People's Fuel & Supply Co., Westfield, Ind., capital, \$1,000; incorporators, W. L. Kline, D. F. Campbell and R. M. Carroll.

Union Coal, Lime & Cement Co., Chicago, Ill.; capital stock increased from \$10,000 to \$25,000.

The Slavonian Coal & Supply Co., Yonkers, N. Y.; capital, \$15,000; incorporators, J. G. Dushock, B. Kossakowski and S. Porach.

Ogdensburg Limestone Products Co., Ogdensburg, N. Y.; capital, \$10,000; to deal in limestone, cement and other products; incorporators, John P. Dunne, Nathan T. Lovejoy, William T. Davis.

George K. Morin, Brooklyn, N. Y.; capital, \$5,000; to engage in construction and building material business; incorporators, W. V., N. F. and G. K. Morin, 366 East Twenty-fifth street, Brooklyn.

Farmers Syndicate Co., Courtland, N. Y.; capital, \$60,000; to engage in the sale of implements, cement and other products; incorporators, G. M. Stoddard and others.

Farmers & Builders Supply Co., Ashland, Va.; capital, \$35,000; Herbert Bumpass, president.

The Manson Building Materials Co., Boston, Mass.; capital, \$10,000; to engage in general contracting and the sale of building materials; directors, Arthur M. Manning and others.

THE SECRET OF SUCCESSFUL SALESMANSHIP.

A salesman cannot afford to make a mistake. Why? Because a salesman's mistake means a customer's funeral.

When a plumber makes a mistake he charges twice for it.

When a lawyer makes a mistake, it's just what he wanted, because he has a chance to try the case all over again.

When a carpenter makes a mistake, it's just what he expected, because the chances are 10 to 1 that he never learned his business.

When an electrician makes a mistake he blames it on "induction," because nobody knows what that is.

When a doctor makes a mistake he buries it.

When a judge makes a mistake, it becomes a law of the land.

When a preacher makes a mistake, nobody knows the difference.

But a salesman, he is different. He has to be careful. He cannot turn his mistakes into profit, or into a profession, as other people do.

In fact, my boy, you've got to go some to be a salesman.—Exchange.

TROY GIVES REASONS.

In a cleverly designed advertising folder, the Troy Wagon Works Co., Troy, Ohio, prints the names of ten firms known throughout the entire United States for the magnitude of their business and states that these constitute ten big convincing reasons why Troy trailers are popular. The folder states that it was only after careful and complete investigations that these firms bought this particular trailer, and adds that there are hundreds of other firms solving their haulage problems in this manner.



The mecca for dealers in builders' supplies appropriately placed at Cleveland, because during the year just past she achieved the wonderful record of being the first city in building in this country, while only claiming to be the sixth city in size of her population. Her enormous activities in the construction of public and private buildings, permanent municipal improvements, etc., outclass all comparison.

The meeting of the National Builders' Supply Association will have the largest and most representative attendance that the organization has ever known. There has been a very pronounced increase in the membership through state, sectional and local subsidiary organizations, which has not only increased the membership, but added to the interest of the association propaganda by means of the broader, practical application of the principles of co-operation and reciprocity, which are the central ideas and cause of the association existence.

There never before has been a time when there was such a general feeling amongst the dealers that they need the counsel and guidance of a co-operative society to protect their interests in the presence of changing and untried business conditions, which indicate bigger opportunities, provided the best means are at hand and thoroughly understood to get the benefit of the same.

The country is ringing with expressions of prosperity on every hand, and the dealer naturally feels and realizes that he has a part and is entitled to an interest in the general prosperity. For more than two years there has been a suspense or a holding back, so

isthat building operations and important improvements were deferred from time to time. Up to six months ago there was inactivity and discouragement resulting from these causes.

Now all of these clouds have been swept away, and every one realizes that out of the enormous prosperity, which is so generally distributed throughout the country, that building and improvement will go forward with a mighty rush as soon as spring weather will allow the activities to begin as soon as the frost is out of the ground.

The aggressive, active and alert men engaged in

dition to make business expand, because it is the profit growing element.

There can be no hesitation on the part of builders, because they realize that further delay means higher cost, both for labor and material. The man who orders building work, and the public officials who order improvements early are the wisest and will get their specifications cheaper than those who wake up later. This is realized by every business man in every line, by every industry and every financier.

One of the most prominent bankers of the country recently said at a Board of Trade dinner: "We are just entering upon the most unprecedented and unmeasurable period of industrial and commercial prosperity that the world has ever known. There is nothing to compare it to, because the condition is practically universal throughout the length and breadth of this land. There never was a time in the past when those who are best acquainted with finances felt so confident as they do at the present time. Our new banking system is proving a wonderful success, and those who were inclined at first to consider that the country was not capable of expansion to absorb the increased banking facilities, now realize that we would be in a very embarrassing position without the increased facilities that the new banking laws have given to us. Business and traffic have grown to such an extent that the managements of the various railroads are ready to acknowledge that they have all of the business that they can possibly handle, and could easily use largely increased



JAMES H. ALLEN, LINCOLN, NEB.

the business of builders' supplies and specialties of every kind are those that will be the first to realize the full benefits of the big prosperity, and mark out the path for those who are able to follow at a slower pace. Probably there never has been a period in our history when so much money was available for building and improvement purposes. The very paucity of business during the last few years is one of the best guarantees of the tremendous need that is tugging at the traces to get work done that has been long deferred.

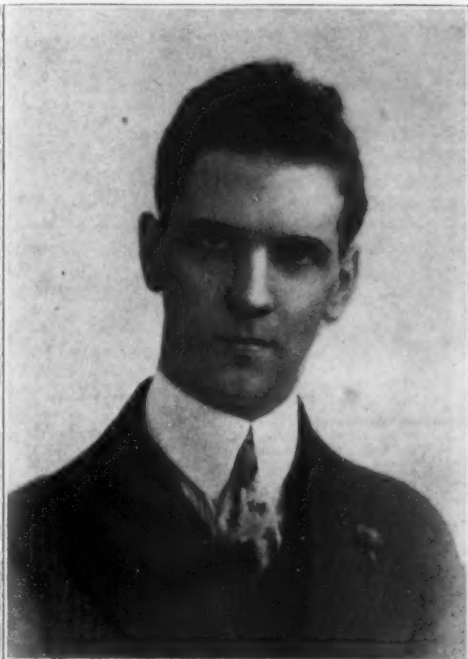
Steady upward trend of the cost of labor, reflected in the rising market prices of every conceivable type and kind of manufactured article gives us the benefit of rising markets. This is always the magnetic con-



J. J. VOELKEL, NEW ORLEANS, LA.



W. A. FAY, CLEVELAND, OHIO.



LOUIS F. DESMOND, CHICAGO, ILL.

facilities if such a thing were physically possible. Business everywhere is readjusting itself upon a broader plane, and with higher levels and greater circles of influence."

It is in times like these that the dealer in building materials finds his only opportunity for doing a greater volume of business, and gaining the profits that his service and accommodation to customers entitle him to take.

For all of these reasons and the general feeling that much information can be gained at the Cleveland meeting, which is attracting the hosts that have indicated their intention of being present by reserving accommodations and arranging for the journey.

Formidable Group of Meetings.

The meeting of the Ohio Builders' Supply Association will be held February 15 and 16, with headquarters at the Hotel Statler. This meeting will be followed by that of the National Builders' Supply Association on February 17, 18 and 19. The National Brick Manufacturers' Association comes on February 20 to 26; the American Ceramic Society on February 21 to 23; the National Paving Brick Manufacturers' Association on February 21 to 22; the National Clay Machinery Manufacturers' Association on February 22. The Society Advocating Fire Elimination will be in session by its executive committee during all of the same week, and the Complete Building Show will be in full swing. Truly this is the most wonderful concentration of building material interests ever brought together at one time.

Early in the fiscal year W. A. Fay, who is president of the Ohio Association, was elected chairman of the Executive Committee of the N. B. S. A. President Allen and the other members of the board have backed up Mr. Fay with full representative powers and he has carried out all the local preparations and arrangements.

The meeting of the Ohio Builders' Supply Association will amount to an efficient preface and preparation for the national event. While working out their own program, they will pick up the threads so as to promptly get to the middle of every question in a history making way.

The detailed work of the executive committee and the formalities and reports of the National convention will all be included in the sessions of Thursday, February 17. The annual banquet, which is to be a joint affair of the National and Ohio associations, will be held on Thursday night. On many occasions in the past there have been observations to the effect

that if the same feeling had prevailed throughout the entire meeting that was noticeable after the banquet, a great deal more could have been accomplished. It has consequently been decided to have the banquet before taking up the serious and active work of the association.

There is no fixed program in the shape of set speeches or papers, but practical work for the promotion of business will be fully discussed throughout all of the sessions. Something to take home in the shape of a definite plan of work and procedure will be developed for the benefit of each and every individual who comes and takes part in the work.

The men who represent the manufacturing branch of the building material business are heartily in accord with every effort in the direction of co-operation amongst the dealers, and one and all have expressed themselves as being in a position to meet all such progressive efforts with the broadest measure of appreciation and reciprocity.

These are good times and prosperous times, and there is a large slice of business for every man who is capable of getting lined up right for the activities of the coming season. There is no way of getting in right comparable to that of heartily joining with the great association movement, which is in a position now to work wonders of practical benefit for all of its members.

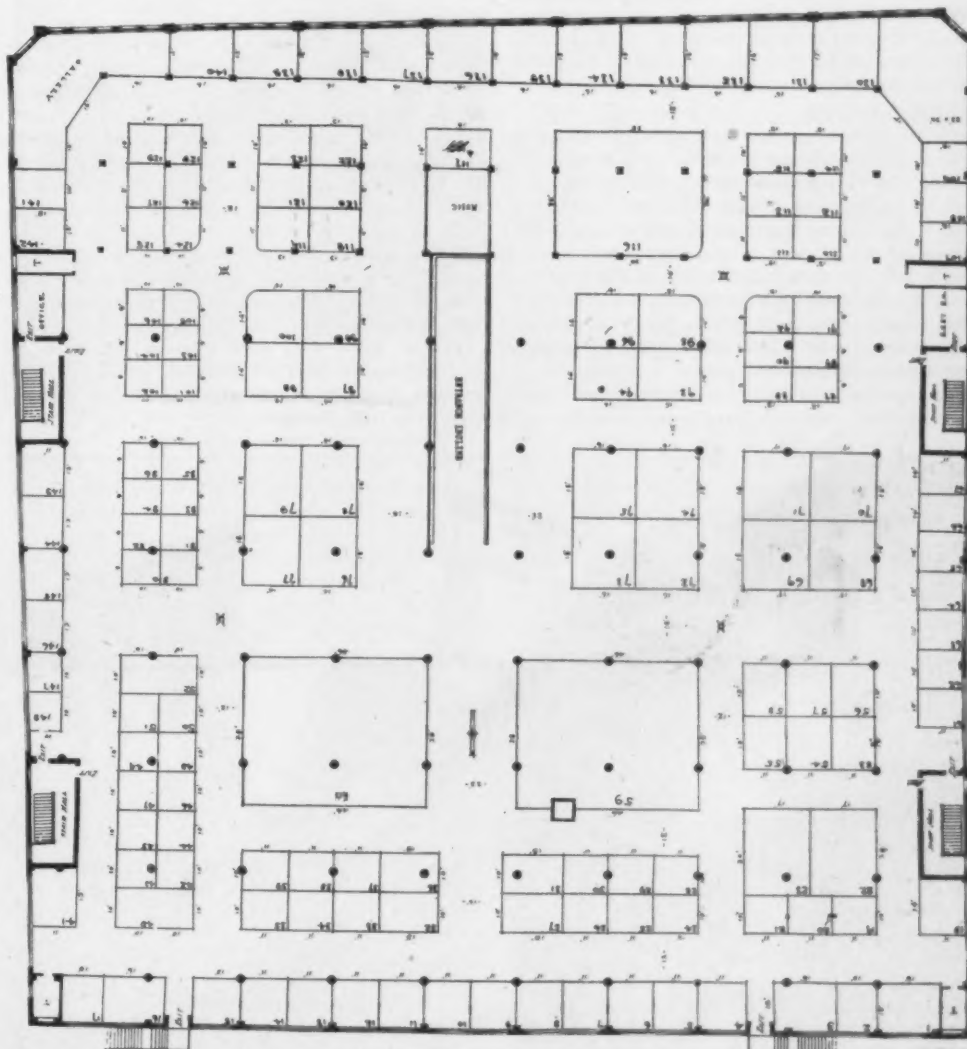
The Complete Building Show in Cleveland, February 16 to 26, of itself is a wonderful attraction. Never before have building materials and the products that constitute the staples and specialties of the dealers been so thoroughly and attractively displayed as has already been prepared in the Cleveland Coliseum. Every dealer in the country who can pos-

sibly afford to take in this wonderful show should do so as a part of his business education. This show, to the men in the builders' supply business is more important than any international exhibition or world's fair, because it is confined to displays of the goods that he handles and is already familiar with, besides a large number of materials and specialties that many of the dealers are as yet unacquainted with. Each and every article displayed will be shown in every possible combination of or specific use for which it is adapted. Full sized models to represent the uses of materials and specialties will be shown and there will be experts to explain the way things are done, and show how the materials and specialties are applied and used in the best practice. All of those dealers who are most intimately acquainted with and connected to the contracting element will find it much to their benefit to secure the definite business information which they can take home with them for future use, by learning exactly how other people make a profit from materials and specialties which they have never known before.

The official description in details is as follows:

About one-half of the floor space will be occupied by demonstrations of the rougher building materials, such as brick, tile, stone, lumber, metal products, gypsum, plaster, sand, gravel, cement and concrete. All these materials are to be worked out in practical structures, some full size and others in miniature. Practically every one of these exhibits were designed by architects and it will result in an array of magnificent facades and details, illustrating both interior and exterior work and each one a picture and a practical suggestion to the future builder.

In this section the type of decorations will be in



FLOOR PLAN OF THE COMPLETE BUILDING SHOW, CLEVELAND.

harmony with the materials used and the exterior effect will be carried out by the use of real sod, shrubbery and plants. Those who visit the Coliseum will at once forget that it is February and winter and their thoughts will be sent ahead two or three months to springtime and the season of flowers and sunshine.

Another section of the building will show real estate development, garden treatment, exterior materials of the ornamental sort, garden furniture and landscaping. Here the decorators have put forth their finest work. The entire section will be one magnificent pergola, fragrant with flowers and echoing with the songs of a hundred canaries.

The third division of the show is devoted to interior equipment, furniture and decorations and labor saving devices. Here the general decorations will suggest the interior and form the proper background for the exhibits.

To fully describe each of the two hundred or more displays that will fill the Coliseum would take more space than is permitted in a single issue of *ROCK PRODUCTS AND BUILDING MATERIALS*, but a reference to a few of them will give a hint of the general beauty of the exposition.

One of the vital problems of the builder today is the choice of materials, especially for the exterior of the structure. Shall it be brick, stucco, stone, lumber or concrete?

The visitor may answer this question for himself after looking over the various displays. The lumber interests of the country have combined with the Cleveland Board of Lumber Dealers in a splendid exhibit. Here will be seen no less than a dozen completed houses, in miniature, each set in real lawn and properly ornamented. Each will be of a different kind of wood and the whole forms the most pretentious single exhibit of timber products ever shown in this country. The lumber exhibit will not be confined to residences, however, but will show the most modern use of lumber for all purposes.

Brick, which is growing in popularity every year, will have a display that will delight the eye of every visitor. In an exhibit seventy feet in length, there will be shown about twenty colors and textures of face brick, ranging from light gray to deep reds and embracing smooth and rough faces. A bungalow, nearly full size, will be a part of this display and there will be installed what is said to be the finest brick mantel ever designed. A beautiful fountain, with running water and a pergola entirely of brick will further ornament this feature.

The Cleveland Builders' Supply Company, known throughout the country for its "Quality and Service"



JOHN A. KLING, CLEVELAND, OHIO.

reputation, will have an exhibit in keeping with its position in the local field. The details of this are to be held as a surprise to the friends of the company but we may maintain modesty and yet say it will be one of the features of the show. Therein will be demonstrated the many materials handled by this concern.

Cleveland is a pioneer in the use of hollow tile and is one of the foremost cities of the country in the production of this safe and economical building material. The manufacturers of hollow tile have combined to show their wares to the best possible advantage and if the display does not create a desire in the heart of the visitor for a "home of his own" it will be because the visitor is far from normal.

Common brick—the regular red variety—may be looked upon as a staple, without beauty in itself, but even the common brick is glorified in this show and this material will appear in such form as to give it new importance with the builder.

Several metal lath manufacturers will unite in a demonstration of their material, showing its fire resistive qualities and the reasons for its growing popularity with builders.

Gypsum will be there with a display of educational nature and the stone companies have prominent locations to show the varied use of this dependable material in construction of all kinds. One of the interesting exhibits will be a stone lathe in which workmen may be seen turning out the ornamental pieces from rough stone.

The remarkable adaptability of cement and concrete, one of the marvels of modern building, will be fully demonstrated and wonderful pieces of art stone, cast from concrete, are to be features of the cement section.

Ornamental bronzes, electric fountains, art glass, all manner of floor tile and every known roofing material may be seen at the Building Show.

Every manner of heating will be demonstrated. Hot air, hot water, steam, vapor and vacuum systems will be in working and the prospective builder may settle this important question if he will study these exhibits.

Paints and oils, so necessary in the finishing of every structure, will have an important place and the suggestions of color schemes for exterior work and of the finishing of interior woodwork will make the show worth while to every person who expects some day to own a home.

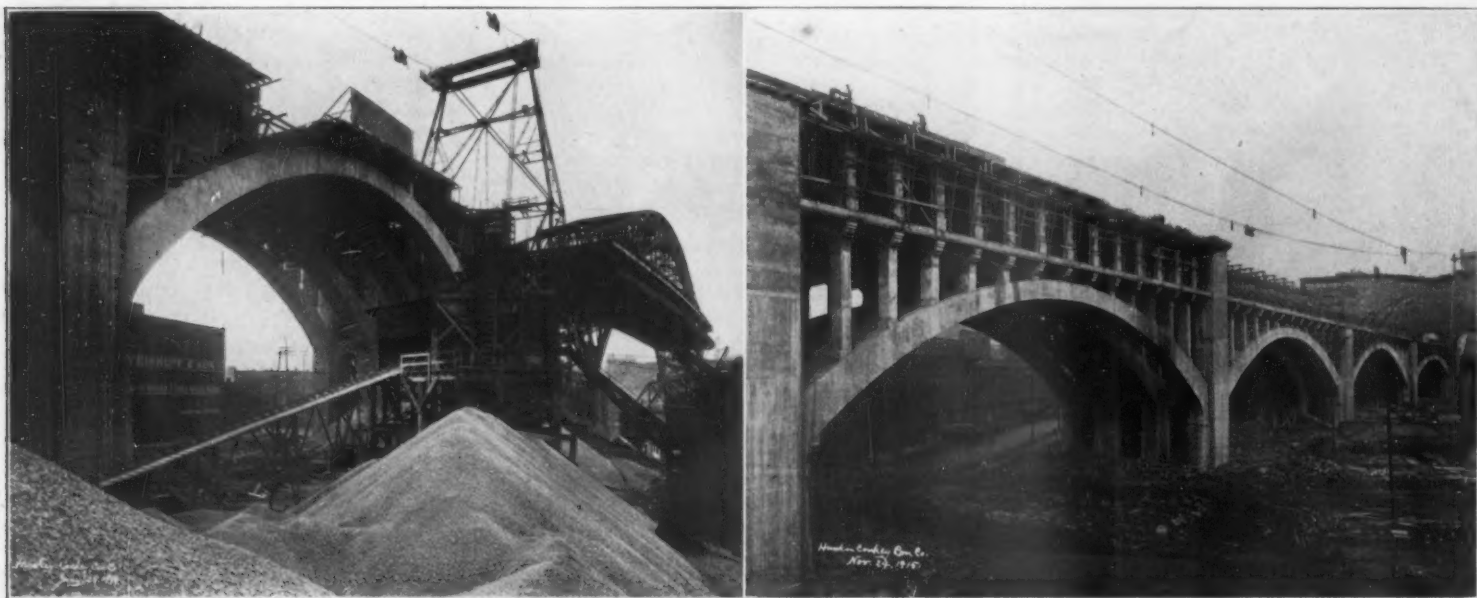
Furniture and draperies, floor coverings, electric fixtures, plumbing and bathroom and kitchen equipment each have their department and the practical suggestions here will in themselves make every visitor glad they attended the show.

In short there is no feature of building from the time the foundation is started until the last touch of the furnisher is complete that will not be comprehensively demonstrated in the Building Show.

In addition to the commercial exhibits there are to be a number of added features in the form of building models which will fit into the general decorative scheme. Drinking fountains, rest rooms, information booths and a well ordered restaurant will be features to add to the comfort of the visitors.

THE DETROIT-SUPERIOR BRIDGE.

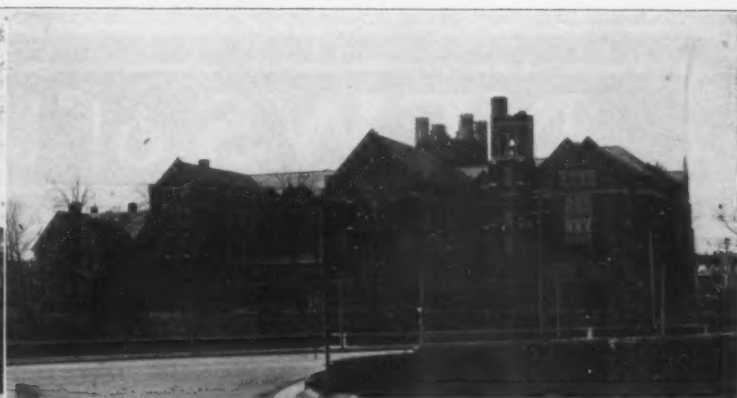
Very prominent amongst the wonders of magnificent Cleveland, and one which will be particularly attractive to the material men assembled for the conventions during the Complete Building Show week, is the Detroit-Superior high level bridge. It is a combination of reinforced concrete and steel and has been built right in the heart of the city in order to divert congestion in traffic between the East side and West side business sections. The structure has a total length of 2,880 feet. It spans



THE FAMOUS DETROIT-SUPERIOR BRIDGE IN CLEVELAND.



C. W. BRAINARD RESIDENCE, CLEVELAND, OHIO.
Keim Medium Egyptian Brick, American Bond, Gray Mortar.



NOTRE DAME ACADEMY, CLEVELAND, OHIO.
Greendale Rug Face Brick.

the Cuyahoga river and connects Detroit avenue on the west side with Superior avenue on the east side. This bridge is provided with two decks. The upper, with a roadway 44 feet wide and two 12 foot sidewalks; the lower, with six street railway tracks. The bridge is straight from end to end and crosses the river at a very acute angle. This necessitates a river span of 591 feet to clear the required width of the channel, and it has a center clearance of 95 feet at lake level for navigation. On each side of this great steel span are a series of reinforced concrete arch spans, three of these being on the west side and nine on the east side. Accompanying illustrations give a very clear idea of the concrete portion of the structure and indicate the whole work.

The longest of the concrete arches has a clear span of 174 feet. The concrete work was done by the Hunkin-Conkey Construction Co., of Cleveland. This wonderful bridge is now about complete. There were 105,000 cubic yards of concrete used in the structure, 134,000 lineal feet of concrete piles were placed under the tiers and there was a total of 138,000 cubic yards of excavation necessary for the foundation, anchorage, etc. Just 600,000 sacks of Lehigh Portland cement were furnished to this job by the Cleveland Builders' Supply Co. It has been estimated that if the sacks of cement were laid end to end they would reach from Cleveland to Pittsburgh. Kelley Island Lime & Transport Co. furnished all of the crushed rock for the concrete and Pelee Island sand was used exclusively. There was 3,600 tons of reinforcing steel placed in the concrete work. It is calculated that the bridge will be completed and open for traffic in the fall of 1916.

The big steel span which crosses the river was fabricated by the King Bridge Co., of Cleveland, and was erected by the Ferro Construction Co., of Chicago. As a municipal improvement this was the greatest undertaking of the past year. One year ago there was completed by the City of Cleveland one of the most extensive municipal filtration plants in the world and this, with other bridges and public buildings are worthy of a visit and study by dealers, contractors and others interested in the building interests in connection with the other convention and show attractions.

MOTOR TRUCKS FOR ROAD WORK.

The California state board of control has purchased 33 motor trucks at a cost of \$76,457, to be used exclusively in connection with the maintenance of the State highway.

The newly organized Hay, Walker Brick Co., of New York City, will be the selling agents for the American Enameled Brick Co., in the metropolitan district, with Messrs. Andrew A. Ayres and William G. Black, of the old firm of Carter, Black and Ayres, will be associated in the new selling company.

Brick as a Specialty.

The manufacture of hundreds of different varieties of face brick has made it more difficult, for the average salesman, to sell this commodity. There are shades and textures without number and to have a complete knowledge of each, together with its financial value, is a task not easily accomplished.

The day has passed when a builder wanted "brick." Today he is particular about that brick. He has been educated by publicity and the erection of homes in his neighborhood and larger buildings in the vicinity of his business. The smooth face brick does not necessarily appeal to him today. He wants to know why it should be used in preference to the



rough faces. On the other hand, the rough face varieties have come to his knowledge, but they are new to him and must come highly recommended. The salesman must know his line and be capable of using expert judgment in advising his prospective customer.

The architect, too, needs to be advised. He is the hardest man for an uninformed salesman to approach; but one who has familiarized himself with a knowledge of brick finds the architectural profession eager for information and easy to convince. In fact, brick salesmen would rather call on architects than on home builders or other persons who seldom have occasion to become acquainted with a commodity like brick.

This necessity for a thorough knowledge of this particular building material places it in a class by itself, because it requires the undivided time and attention of a salesman who would secure the highest degree of efficiency in its distributing. As a result, it becomes a specialty and in practically every office in the larger cities is treated as such. In many instances, the sale of face brick is separated from the rest of the sales department and quite frequently we find customers referred to the "brick department" which usually consists of an attractive display room with a desk or two for the manager and his salesman.

Display rooms are absolutely essential as a means of distributing brick. There are many displays of

merit throughout the country, but one of the most practical is found in the offices of the Cleveland Builders' Supply Co., Cleveland, Ohio. This display is placed in a large room, which has been furnished with lounging chairs, a beautiful rug and such other appointments as make for the comfort and convenience of visitors. Ordinary window shades are used to cover or hide panels when it is desirable to show but one of them.

W. H. Gifford is manager of the brick department of this company and states that the brick display is one of inestimable value in showing prospective builders, whether individuals or committees. It is Mr. Gifford's experience that when the day of deciding on the brick to be used in the construction of a building is at hand, persons seldom go away from the institution without leaving an order.

Brick as a specialty will be emphasized in the displays at the Complete Building Show at Cleveland, where a large number of the men engaged in selling this particularly commodity will congregate.

American Road Builders to Meet.

The date for holding the next or thirteenth annual convention of the American Road Builders' Association has been set for the week of Feb. 28, 1916, the closing day being March 3. It will be held in Pittsburgh.

This meeting, which will be the only one of the American Road Builders' Association in 1916, will be the thirteenth annual convention of the Association. It will also be the sixth American Good Roads Congress to be held under its auspices, and will include also the Seventh National Good Roads Show of machinery and materials. This show or exhibition will be held in Mechanical hall, while the sessions of the congress will be held adjoining. The congress will commence on Monday evening, Feb. 28, with the formal opening of the show, and will end on Friday, March 3, the technical sessions commencing on Tuesday morning, Feb. 29, and continuing on Wednesday, Thursday and Friday.

The recent meeting of the stockholders of the Standard Lime & Stone Co., Fond du Lac, Wis., resulted in the election of the following officers: President, E. H. Lyons; vice president, W. I. Hamilton; secretary and treasurer, W. A. Titus; directors, E. H. Lyons, W. I. Hamilton, W. A. Titus, Alfred Frerk, Chicago; Fred Krackman, Chicago; William McDermott and D. D. Sutherland, Fond du Lac.

The MacAdams & Call Co., of Chicago, general sales agents for the E. D. Coddington Manufacturing Co., North Milwaukee, Wis., manufacturers of E-Cod Fabric, which is used as a plastering base, has opened an office in Milwaukee at 209-210 Merchants and Manufacturers' Bank building. A. J. Miller, representative of the company, who has been handling the product, is in charge.

NEWS of the TRADE

January Figures Compare Favorably.

New York, Feb. 4.—Building construction in the eastern part of the country, as shown by actual contracts awarded in January, indicating current demand for building materials and subdivided by states and districts are given in detail below. The figures are reported by the F. W. Dodge Co., and in some cases represent operations that are already under way. They cover building and engineering operations in New England, New York, New Jersey, Pennsylvania, Maryland, Delaware, District of Columbia, Virginia, Ohio, West Virginia, Illinois, Indiana, Iowa, Wisconsin, Michigan, Minnesota, North and South Dakota and portions of Missouri and eastern Kansas. The following figures show the contracts awarded for the month of January, 1916, as compared with other years: 1916, \$62,784,500; 1915, \$43,257,000; 1914, \$51,102,000; 1913, \$62,810,500; 1912, \$38,910,000; 1911, \$66,892,000; 1910, \$39,005,395.

The comparative statistics of building and engineering operations in New York state and northern New Jersey are as follows: Contracts awarded for the month of January, 1916, as compared with other years: 1916, \$9,227,500; 1915, \$9,940,500; 1914, \$8,111,000; 1913, \$22,481,500; 1912, \$10,075,000; 1911, \$15,499,000; 1910, \$11,193,500.

DISTRIBUTOR PAYING FOR PROSPERITY.

New York, Feb. 4.—John A. McCarthy, one of the most prominent building material distributors in the Harlem and Bronx sections of New York, said this about the building material situation:

It's all right to talk about prosperity, but the very things that are making the kind of prosperity we are getting now is taking the profits right out of the building material distributor's pocket.

I see that the price of structural steel went up this morning another five cents. They have been telling us that glass and iron have also gone up. Then there's brick. Common brick is selling pretty close to ten dollars, wholesale. If brick behaves that way there is lime, lumber and all the other things that go to make construction to consider. All these things are higher. Outside of steel, brick and cement, there is little important change in the aggregate material price situation. It only amounts to 3.5 per cent. That rise might not stall the average building operation, but when you take a steel skeleton building operation your cost runs up 10.5 per cent and then where does the margin of profit go to on the average speculative job.

I get inquiries for nice lots of brick, cement and similar materials, but when they come to find out that they have to pay twenty-five per cent premiums for structural steel that is to be delivered within the new building season, the projectors just shake their heads and the next thing you see is their coat tail going out the door. This advance of building material prices is going to take a mighty big wallop out of the volume of construction that normally would go ahead in this end of the city.

SNOW BLOCKS BOSTON'S ACTIVITIES.

Boston, Mass., Feb. 3.—The biggest snowfall in Boston in seven years, in a two days' storm, beginning yesterday (when, if the groundhog really came out he did not see his shadow, it is a sure thing) brought building operations to a temporary standstill. A good deal of work is under way and, as soon as the city crawls from under its twelve-inch blanket of snow, not equaled, according to authentic weather records here, since 1909, and the weather permits, business will go ahead. From the general indications building operations in Boston will have another strong year and the material men and con-

tractors are generally satisfied with the outlook. Besides the present weather blanket, the trade is also held in restraint now by the New Haven railroad embargo, the system which covers New England points almost exclusively.

Just one Portland cement company would have fifty carloads coming into New England today if it could get past the Hudson river blockade. Steel is slow and other building materials held in check, the latter principally by the transportation situation. A few cars of builders' metal and facing material broke through the first of the month on a system of presenting affidavits that the supply was to complete work under way, but before much of anything got moving under this arrangement the road officials called it off. Today's news is that the Pennsylvania railroad is going to let 500 cars of coal a day go through to New England to prevent a fuel famine, and hopes grow again that munitions will be sufficiently moved soon to let in all the builders' supplies that the big building year looming up will take. A bright spot in the railroads' congestion extremity is that they will have to do something at once on the preparedness line. They have put off new trackage in the past several years of railroad-baiting, and with the certainty ahead of heavy movements during the war and an extended prosperity period thereafter, are caught where they cannot put off any longer. Consequently railroad projects are looming, which mean an enormous amount of business for material concerns this summer.

Building permits of the past two weeks show continuance of small building in goodly volume. The projects, according to the F. W. Dodge Co. reports, were 165 and the valuations \$2,124,000 for Greater Boston. The total valuation in new construction for January reached the total of \$4,300,000. Many of these are investment tenements, and block after block of small stores in the Dorchester section, a development begun last summer and continued to date without letup. The houses are mostly of frame, with concrete foundation, while the stores are brick with stone trimming.

James T. Lincoln, of Waldo Bros., Inc., dealers in a general line of builders' supplies, is of the opinion that the 1916 season will be a good one when it gets fairly started. Mr. Lincoln said that checks by authoritative institutions to speculative buying insured a season of building activity of many kinds; that money seeking investment had to have as secure a prospect as possible in the present world and commercial conditions, and that the most conservative turned steadily to many small buildings and other new construction.

MILWAUKEE DEALERS GET BIG ORDER.

Milwaukee, Wis., Feb. 4.—Rickertson & Schwarz, well-known brick and general building supply firm of Milwaukee, was awarded the contract for furnishing 1,250,000 brick for paving portions of Forest street and Grand avenue in Wausau, Wis.

Considerable paving work will be done by Wisconsin cities this season. The board of public works at Madison, the capital city, has announced plans for laying about \$135,000 worth of pavements this spring. B. C. Brennan, superintendent of public works, at Kenosha, Wis., has prepared preliminary plans for about 8,000 square feet of brick paving with concrete foundation, curb and gutter.

The committee of public works at Tomah, Wis., had announced that it would receive bids until Jan. 31 for laying brick or concrete paving on portions of McLean avenue and West Cameron street.

The Grand Ledge Clay Products Co., of Grand Ledge, Mich., has been awarded the contract by the Milwaukee department of public works for furnishing 40,000 feet of double duct and 5,000 feet of single duct vitrified clay conduits for the fire and police alarm system of Milwaukee.

TORONTO BUILDING IMPROVES.

Toronto, Feb. 2.—The past month's building permit record shows an increase in the number of permits and the number of buildings erected, as compared with January of 1915, but the total value is \$36,000 lower. The figures:

January, 1916: Permits, 135; erections, 168; cost, \$199,590.
January, 1915: Permits, 116; erections, 134; cost, \$235,757.

The Robert Simpson Co., Toronto, will erect a large warehouse and office at an estimated cost of \$400,000. The contract has been let to Wells Bros., Monadnock building, Chicago, Ill.

The Western Ontario Clay Workers' Association will meet at London, Ont., Feb. 22 and 23.

The Premier Granite & Sand Co., Montreal, has registered.

The Empire Sand & Gravel Co., Toronto, Can.; capital, \$40,000; directors, E. F. Raney, F. H. M. Irwin and F. G. McAllister.

RETAILERS RE-ARRANGING OFFICES.

Cincinnati, Ohio, Feb. 4.—With the most severe weather of the winter just behind, mixed, it is true, with some remarkably mild weather as well, it is not difficult to understand that things have been rather quiet with material handlers in this vicinity recently. The optimistic sentiments which have prevailed for some time, however, are still in evidence, the amount of work which is ahead, both in the hands of the architects and already ready for letting, being such as to guarantee to the trade about all it can handle. Every dealer in the city is looking for a big spring business, and there is no apparent reason to believe that this expectation is at all out of the way.

Moving into larger quarters and enlarging the personnel at the same time is the recent record of the Brick Sales Co. at Cincinnati. Downley Wever, who was for some time associated with the brick department of the Moores-Coney Co., became connected with George Rinkenberger in the Brick Sales Co. some weeks ago, and the company has taken about double the space in the St. Paul building which it formerly occupied. The display room is being placed in good shape, with a considerable addition to the specimens of goods on hand, and will be very complete and attractive when finished.

Things have been coming on satisfactorily with the Moores-Coney Co. recently, in the brick and other departments, although deliveries lately have not been heavy on account of the weather. The company has taken advantage of the lull to rearrange its offices to some extent, the extremely large line of brick and other materials which it carries crowding even the big space which the company occupies, being a whole floor of the St. Paul building.

Are You Taking Advantage of Your Opportunities?

WE can give you some real practical help in installing sand and gravel or crushed stone plants—or increasing the capacity of your present plant as well as its efficiency.

Our Service

We maintain an engineering organization which has successfully met hundreds of conditions similar to yours. The staff of "S-A" engineers are ready to study your problems, assist in your designs, etc., and then point out your opportunities of economy and bigger profits.



DESCRIPTIVE VIEW OF ATWOOD-DAVIS PLANT AS REMODELED TO OPERATE NEW TRACT

We manufacture a complete line of labor saving machinery including

Conveying Machinery—all types.

Screening Equipment—of the several types suitable for all coarse or fine screening.

Power Transmission Machinery—Complete rope drives as well as a complete line of pulleys, bearings, gears, chains, etc.

We design and install complete sand and gravel washing plants, crushed stone plants, storage systems, etc. We have the organization and products that mean economy to you.

Your Correspondence and Consultation Are Invited

"The Labor Saver" is for You. It is a magazine published by us which describes and illustrates interesting conveying systems, gravel washing installations, etc. We will be pleased to place your name on our list for this live cost-cutting news messenger.

STEPHENS-ADAMSON MFG. COMPANY

Aurora, Illinois

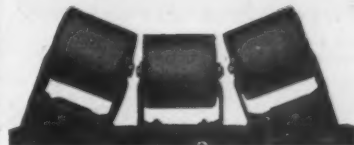


GILBERT SCREEN
The most effective type of screen for washing gravel.
LARGE CAPACITY CLEAN SEPARATION
LOW INSTALLATION COST
MINIMUM POWER REQUIRED

New York
Los Angeles
St. Louis

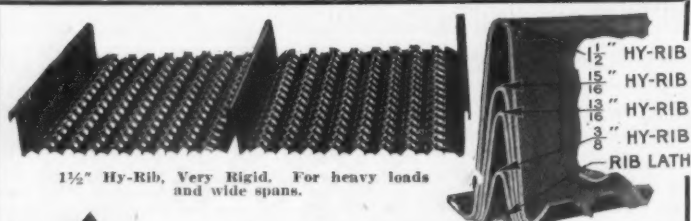
Boston
Pittsburgh
Toronto

Chicago
Salt Lake City
Huntington



UNIT CARRIER
Equipped with ball-bearings. Will run 3-5 years without attention.
SAVES THE BELT REDUCES POWER
INDESTRUCTIBLE

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



THE COMPLETE LINE
The best products in each line
for all dealers and contractors

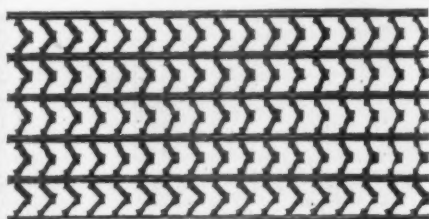
HY-RIB

Roofs, Floors, Partitions, Ceilings, Sidings, Furring
NO FORMS—NO STUDS

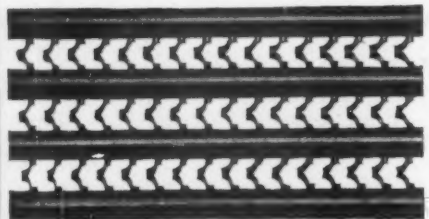
METAL LATH

Hy-Rib Lath, Rib Lath (3 types), Diamond Lath (2 types)

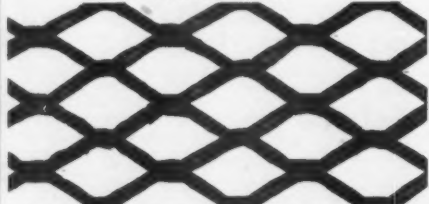
Write for dealer's proposition covering our complete line.
Some good territory open. Act quickly—catalog and
further information on request



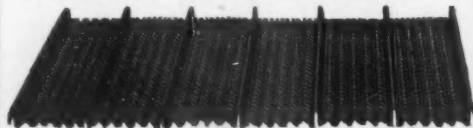
Standard Rib Lath in three gauges. Also "B" Rib Lath, similar in design.



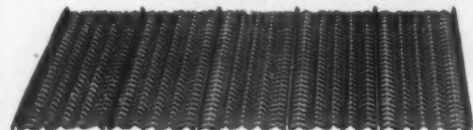
Banded Plate Rib Lath—Permits two-coat work instead of three.



Diamond lath of two types and various gauges.



15/16" Hy-Rib for floors and roofs without forms—sidings, partitions, and ceilings without channels.



9/16" Hy-Rib Lath used as a self-furring lath and in partitions, ceilings, etc., for stud spacings 24" to 36".

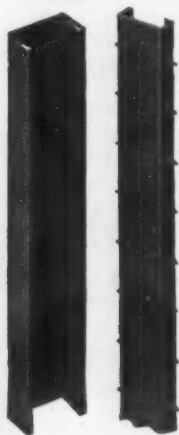
**Trussed
Concrete
Steel Co.**
Youngstown, Ohio

Representatives in
Principal Cities

**Pressed Steel
Channels and Studs**

All types and sizes
with and without
prongs for Parti-
tions and Ceilings.

Corner Beads
4 Types



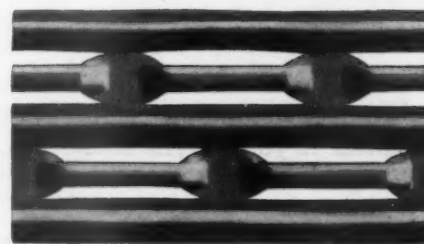
KAHN
Pressed
Steel
Channels,
3/4", 1",
1 1/2", and
2"

KAHN
Pressed
Steel
Channel
Studs, 2",
3", 4",
5" and 6"

See Our Exhibit at the Chicago Cement Show

This Exclusive Design Found Only in Sykes' Trough Lath

Gives You Money-Saving Advantages



For Interior Work, Sykes Trough Lath is the best, not only because it is strongest, but also because it is as easy to plaster on as wood lath, and is very economical in amount of mortar used.

For Ceilings, Mantel and Tile Setting Sykes Trough Lath will give both builder and owner the greatest value. It saves time and money. It insures permanent strength.

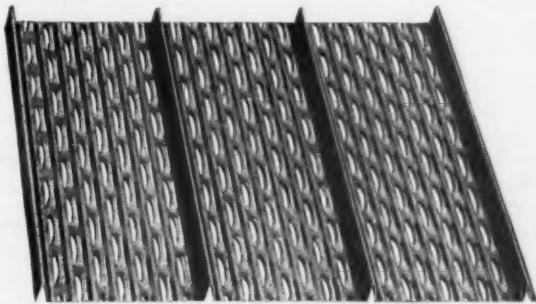
Furnished painted black. Free sample and prices on request.

When you see Expanded Metal Lath, choose Sykes' Expanded Cup—the self-furring Metal Lath that saves 5 to 10 cts. a square yard—no furring strips needed.

Write us now for Book of Specifications for Stucco on Metal Lath and for sample of Sykes Expanded Cup Lath—both free

Sykes Metal Lath and Roofing Co.
508 River Road Warren, Ohio

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



"Bostwick Truss-V-Rib"

Is ideal for porch floors. With it you can interest the buyer for small homes as well as for large propositions.

Your Clients Will Save

the cost of forms for light concrete floors and roofs, and channels for sidings, partitions and ceilings, by using

"Bostwick Truss-V-Rib"

They will get a 12% heavier material, with the "truss" formation found only in "Bostwick" products, and which makes for increased weight carrying capacity and a

LOWER FINISHED COST

SEND FOR SAMPLE AND BULLETIN \$2C

The Bostwick Steel Lath Co., Niles, O.

Protect Your Walls—Marvel Window Chutes

protect against coal haulers and burglars. See the wings! What's the use of a punch, anyway? Safety first. Marvels lock automatically. Heavy and indestructible.

Mr. Material Man: If you are early enough you can have the exclusive agency in your city, and our prices are right. And the individuality of the Marvel Chute makes it easy to sell.

DIMENSIONS AND PRICES

Chutes with Solid Iron Doors

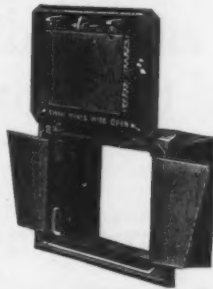
NOTE—Marvel Junior has no wings. All others have swinging wings. Marvel Junior Marvel Marvel
No. 409 No. 418 No. 513 No. 618
Wall opening.....17x24 17x24 17x30 22x33
Depth of body.....9 in. 13 in. 13 in. 18 in.
Shipping weight.....55 55 100 125
Price.....\$5.00 \$7.50 \$8.50 \$12.00

Chutes with Wire Reinforced Glass in Door

Marvel Junior Marvel Marvel Marvel
No. 109 No. 113 No. 215 No. 315
Shipping weight.....60 110 125 190
Price.....\$5.00 \$9.00 \$10.00 \$15.50

Chain opening attachment no extra charge.
Ask for Leaflet "R."

Interstate Mfg. Co., Oskaloosa, Iowa



CRESCENT

Portland Cement

WAMPUM, PENNSYLVANIA

WELLER-MADE

DELIVERY GATES
Undercut Overcut Duplex
Plain or Special

SCREENS :: ELEVATORS
Everything for handling Sand, Gravel and Crushed Stone

Weller Mfg. Co., Chicago



Duplex Bin Gates



Undercut Bin Gates

Beautiful Houses from Illinois to Massachusetts are Roofed with Reynolds Flexible Asphalt Shingles



A multitude of pretentious residences in a score of states are giving ample proof of the long-lasting surface of Reynolds Flexible Asphalt Shingles.

Every type of modern home can be protected and beautified, at lower cost, with these time-

tried, weather-tested shingles. They withstand the ravages of driving rain, pelting hail, hottest sun and heaviest snow without warping, cracking, splitting, curling or blowing off. Sparks cannot set them off fire. Long Exposure cannot dull their rich color. Adaptable to every style of pitched roof, and make possible unusual architectural effects, such as roll edges, thatch effects and rounded corners.

Reynolds Asphalt Shingles

Guaranteed for 10 years—will wear many years longer—
Write for liberal agency proposition.

Rough-surfaced weather defiers made of crushed slate or granite securely embedded in pure Asphalt. Natural colors of garnet, red or gray-green which never fade and never need painting. We are the original makers of flexible asphalt slate shingles and tested them for ten years before putting them on the market. They are uniform in size—8 ins. by 12½ ins.—and are laid 4 ins. to the weather. Easily and quickly laid.

Let us send you a booklet showing photographs of modern houses roofed with Reynolds Asphalt Shingles. Write for a copy TODAY.

H. M. REYNOLDS ASPHALT SHINGLE CO.
Original Manufacturer Grand Rapids, Mich.
Established 1868 Members of National Builders' Supply Association

How Was This Material Handled?

79,281,735 tons of sand and gravel
produced and sold in 1914—

49,364,476 tons of crushed stone
produced and sold in 1914—

—from report of Dept. of Interior

A large amount of this material was handled and stored by inefficient methods.

The manufacturers of economical handling equipment—of cranes, buckets, elevators, etc., should take advantage of this great producing field and tell their story of economy to these quarrymen.

ROCK PRODUCTS AND BUILDING MATERIALS is the official paper of the quarrymen of the United States—its advertising pages cover the complete "buying power" of this great industry.

How Much of the Above 130 Million
Tons Did Your Equipment Handle?
How Much Do You Wish to Handle
in 1916?


Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Announcement—

The Northern Granite and Stone Co., has been organized to supply all shapes, sizes and grades of granite and building stone requirements of the contracting and building trades, with dependable deliveries to the limit of transportation facilities by rail or water.

Hard Northern Granites Granite Paving Block
Crushed Granite Fine Granite Screenings
Bedford Limestone

 Crushed Granite and Colored Granite screenings for surfacing concrete and other special purposes, supplied to **dealers** for stock in any quantity.

GRANITE QUARRIES AND PLANTS

Utley, Wisconsin
Berlin, Wisconsin
Red Granite, Wisconsin
Ableman, Wisconsin

Alexandria Bay, New York
Wesley Island, New York
Granite Quarry, North Carolina
Stone Mountain, Georgia

See Our Exhibit at the Complete Building Show
CLEVELAND

February 16th to 26th

The **Northern Granite & Stone Co.**

W. P. HURST, *President*

808 Leader News Building

CLEVELAND, OHIO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Concrete Armies Assembled in Chicago

Chicago is the center of many things and during the week of Feb. 12 to 19 it will be the cement center of the world. The Ninth Annual Chicago Cement Show, accompanied by the annual conventions of the American Concrete Institute, the National Conference on Concrete Road Building, the Association of Municipal Building Inspectors, the American Concrete Pipe and Tile Association, the Association of State Highway Officials, and the Illinois Lumber and Material Dealers' Convention, constitute a joint attraction which is of vital interest to every cement user, engineer, architect and public official having to do with building and the matter of permanent public improvement.

The cement show has grown and improved through each year of its history, and the ninth show is no exception to the rule. The confidence of exhibitors is shown by the fact that the great Chicago Coliseum, the largest exhibit floor in the world, is no longer capable of accommodating the exhibits of concrete equipment tools and accessories. It has been necessary to provide additional space by the use of the First Infantry Armory, which is located nearly adjacent to the Coliseum. The large additional floor space so made available has also been completely filled with exhibits, and still it has been difficult by the management to prevent crowding. All roads lead to Chicago, and it is safe to predict at this time that record-breaking attendance will be registered each and every day of the greatest cement exhibit that has ever been assembled.

The conventions mentioned above are full of practical interest to all of the men engaged in the various

employ of the government testing laboratories, when reporting upon a series of fire tests, showed that well-made limestone concrete is at once the cheapest, best and most dependable fire resistant known. Exhibiting photographs of a large number of tested cylinders, it was found that when subjected to fires having such heats and durations as are ordinarily encountered that the destructive element does not penetrate more than one-half inch in extreme cases, and little more than a quarter of an inch in the average of tests. The test cylinders were of such a volume and cross section as would be used in the ordinary members, beams and columns, in light construction. That is to say, nine and twelve-inch diameters. While not altogether conclusive, this report showed that in the opinion of the government's experts limestone concrete is the most acceptable material that they know of and will not hesitate to endorse it. There is no better or more impartial proof that all the contentions with regard to fire elimination that have been made are well founded. The same fact has been proved by the experience of the Edison fire, a little more than a year ago, and again in a Chicago case, in which all of the buildings of a great industrial plant were entirely destroyed, save only that which was built of concrete.

The permanent character of heavy improvement work to resist the ravages of the elements has been so well proved out that all of the railroads are now using concrete exclusively for retaining walls, bridges, viaducts, track elevations, tanks, floors and all of the manifold structures required in the operation of modern railroads. Municipalities have been using concrete for dams to secure a water storage, for filtration installations, for sewage disposal, for piers, docks and warehouses and every conceivable structure for which the money of the people is spent as a public dependence for perpetual use as a permanent and final investment.

In each and every one of these avenues of usefulness concrete construction has proved to be the best obtainable, and all the while it has been as cheap or cheaper than any other system of construction that has any pretense to high merits or enduring value.

Beginning with a mere suggestion ten years ago, it has been found that concrete, when used in street and highway construction, contains the same high value that has been proved out for it in all of its other uses.

One of the biggest factors and most widely respected scientists of the cement industry, only five years ago said that he could not see any opportunity whatever for the use of cement in connection with highway work, except as to the bridges and culverts, but within a week the same individual expressed himself in such a way as to indicate that he now is a concrete highway enthusiast. So rapid and wonderful are the developments of the use of cement and the applications of concrete that even the greatest leaders realize that they can hardly keep up with the procession.

With all of this progress, an immense army of men have enrolled themselves under the cognizance of the cement industry. The foremost engineers of the age are thinking in terms of cement. Architects gifted with the divine principle of creating beauty are recognizing the splendid new opportunities that are offered to them in the field of concrete. While the decoration feature is now recognized and used in the practice of the most brilliant minds and eminent men in the architectural profession, what we have accomplished is but a suggestion in comparison with the achievements that are yet to come when concrete decoration becomes the main study of the ambitious young men who are to be the masters of architecture and art in the tomorrow that is right with us.

General Manager Robert F. Hall, of the Cement



B. F. AFFLECK,
Presiding Genius of Cement Activities.

Products Exhibition Co., and his very well selected corps of assistants, is to be congratulated upon the organization of the greatest show that the cement industry has ever been able to offer for the further enlightenment of those who recognize the value of such comparative instruction.

President Affleck, of the Cement Manufacturers' Association and of the Exhibition Co. as well, with the hearty co-operation of the executive committee and the officials of both organizations, has brought about the concentration of technical, official and artistic interest in the occasion.

The Portland cement manufacturers have arranged for a joint comprehensive exhibit at the show in which those features of concrete construction and the uses of cement which are not commercially profitable for ordinary exhibitors to show. This exhibit has been very carefully considered and worked out by the experienced minds of the accepted leaders of the cement industry, with the aid of the best engineering talent in their employ.

So the great show is not merely a machinery market-place, but it has a wide public interest which is well worthy of the careful attention and study of every householder, business man and public spirited citizen.

President L. C. Wason, of the American Concrete Institute, working with his board of directors, has secured the co-operation of a long list of papers representing the best talent of the country.

J. P. Beck, secretary of the National Conference on Concrete Road Building and head of the promotion department of the Cement Manufacturers' Association, has provided for the best road building talent in the country to discuss the practical questions that relate to the most important improvement program now before the American people, that of the improvement of the highways.

A new line of practical procedure for securing road appropriations and the co-operation of the farmer will be considered, and practical means of working in this important field are to be developed. This will be a history making conference, for with experience a great deal of improved information is available and will be made useful to all who participate in the deliberations.



ROBERT F. HALL,
General Manager, Cement Show.

lines which the organizations represent. The business is growing in all of its branches and new lines are being developed, perfected and universally adopted with as much speed as conservative engineering and technical details of the fundamentals can be worked out and understood.

Portland cement is the king of products and gives to mankind the best and only means to secure structures safe from fire and permanent in the presence of variations of climatic conditions. The enormous fire waste that has always been the worst feature of our material development is attracting ever greater interest in the subject of concrete construction.

Only a few days ago an expert engineer in the

It will be impossible to mention all of the details that are of special interest to individuals who may be hesitating about coming to Chicago for the great cement occasion. To them we can only say that it is impossible for any man who is interested in the uses of cement to come to Chicago and fail to get the instruction that he wants, to make his own business more satisfactory and more profitable. If any such come to the show, who are bewildered by the very bigness of the affair, come to the booth of ROCK PRODUCTS AND BUILDING MATERIALS. We will endeavor to guide him to the place where, and to the man who, will be ready gladly to give that which he seeks. The booth is there for no other purpose but to be of assistance to those who have depended upon us for impartial suggestion and for guidance in a great many ways.

The invitation of Chicago, the Cement Products Exhibition Co. and this journal is a real invitation, and no man who comes shall go away disappointed if he will only make his desires known.

THE JOINT CEMENT EXHIBIT IN THE ARMOY.

The joint exhibit of cement manufacturers may be briefly described as follows:

There will be five big general divisions in this exhibit. (1) The road division will contain models, actual sections and ample data to give the visitor a clear conception of concrete pavement types. A recent government model showing the method of road building will be particularly interesting. Another model contrasting paved and unpaved alleys should make clear that the building of concrete alleys is an important move for civic betterment.

(2) The structural and decorative division will show examples of interior and exterior decoration, as intricate in character as the Hollenden Hotel (Cleveland) panels. Cast concrete specimens typical of the work which architects, particularly in the east, are using in distinctive work, will be shown. Surfacing with special aggregates and with characteristic treatments will be displayed in a manner which will show both the finished surface and the processes of production. Photographs and charts to bring out the lessons of the Edison and Salem fires will be shown in this booth.

(3) The rural contractor division will bring out the possibilities of concreting in rural districts. With the demand for concrete already created, the small town contractor should find the farm exhibit of especial benefit.

(4) The concrete unit division will treat of the methods of surfacing concrete units. The processes of bringing out the colors and brilliance of aggregates should interest architects and builders. A unit bungalow designed by one of Chicago's foremost architects will be the feature.

(5) The good concrete division will demonstrate by means of a 2,000-pound testing machine and other laboratory apparatus that a better and more economical concrete results from the use of graded aggregates than from bank run materials. Full sized cylinders of clean and unclean aggregates will be used in the tests.

AMERICAN CONCRETE INSTITUTE.

The official program of the twelfth annual convention of the American Concrete Institute, the sessions of which will be held at the Auditorium hotel, beginning Feb. 14 and continuing to the 17th, will be as follows:

Monday Morning, Feb. 14.

Opening remarks by the President, Leonard C. Wason,



J. P. BECK.
Secretary of Concrete Road Conference.

President of the Aberthaw Construction Co., Boston.
"Concrete on the Massachusetts State Farm," Arthur J. Maynard, Superintendent of Construction, and Benjamin Baker.

"Relining the Winston Tunnel, Chicago Great Western Railroad," Harold P. Brown, Consulting Engineer, 120 Liberty St., New York.

"Swimming Pools," Edw. D. Boyer, Cement Expert, Atlas Portland Cement Co., New York.

"Durability of Concrete Pipe," J. H. Libberton, Assistant Engineer, Universal Portland Cement Co., Chicago, Ill.

"Novel Features of Concrete Work on the New York Subway," Robert Ridgway, Engineer of Subway Construction, and Ralph E. Goodwin, Junior Engineer, Public Service Commission, New York.

Report of Committee on Nomenclature, Chairman, Frank C. Wight, Managing Editor, Engineering News, New York.

Monday Evening, Feb. 14.

"Cost Accounting on Concrete Work," Sanford E. Thompson, Newton Highlands, Mass.

"Operation of the New York Workmen's Compensation Law to Date," Wm. C. Archer, Deputy Commissioner in Charge of Bureau of Workmen's Compensation, State Industrial Commission, New York, N. Y.

"An Interpretation of the New Standard Contract Documents," H. L. Lewman, President, National Association of Builders' Exchanges, Louisville, Ky.

Report of Committee on Insurance, Chairman, J. P. H. Perry, Contract Manager, Turner Construction Co., New York.

Report of Committee on Building Blocks and Cement Products, Chairman, Robert F. Havlik, Moosehart, Ill.

Tuesday Morning, Feb. 15.

Report of Committee on Reinforced Concrete and Building Laws, Chairman, E. J. Moore, Chief Engineer, Turner Construction Co., New York.

"Requirements of Building Codes for Columns," P. P. Furber, Resident Engineer with C. A. P. Turner, Chicago.

"Design of Concrete Buildings," W. P. Anderson, President, Ferro-Concrete Construction Co., Cincinnati.

"Construction of Flat-Slab Floors." The details of this paper are in the hands of a special committee, which will announce the author later.

Tuesday Evening, Feb. 15.

"Genesis of Reinforced Concrete Construction," Prof. W. K. Hatt, Purdue University, Lafayette, Ind.

"A Further Discussion of the Steel Stresses in Flat-Slab Floors," Prof. H. T. Eddy, 916 S. E. Sixth St., Minneapolis, Minn.

"Design of Foundations for Reinforced Concrete Buildings," Robert W. Boyd, Consulting Engineer, 105 West 40th St., New York.

Report of Committee on Fireproofing, Chairman, Major John S. Sewell, Gantt's Quarry, Ala.

Report of Committee on Treatment of Concrete Surfaces, Chairman, Cloyd M. Chapman, Engineer of Tests, Westinghouse, Church, Kerr & Co., New York.

Wednesday Morning, Feb. 16.

"Tests Showing Continued Deformation under Constant Load," Prof. A. H. Fuller and Prof. C. C. More, University of Washington, Seattle.

"Influence of Temperature on the Strength of Concrete," Prof. A. B. McDaniel, University of Illinois, Urbana, Ill.

"Tests of Reinforced Concrete," Burtis S. Brown, Consulting Engineer, Boston, Mass.

Report of Committee on Reinforced Concrete Highway Bridges and Culverts, Chairman, C. B. McCullough, Designing Engineer, Iowa Highway Commission, Ames.

Report of Committee on Sidewalks and Floors, Chairman, Lewis R. Ferguson, Engineer, The Cement Association, Philadelphia.

Business Affairs of American Concrete Institute.

Wednesday Afternoon, Feb. 16.

"Difficult Foundation Work on the Bay of Fundy," N. M. Looney, Chief Engineer, American Can Co., New York.

"Forms for Concrete Work," R. A. Sherwin, Resident Engineer, Aberthaw Construction Co., New Haven, Conn.

"Concrete Viaducts," Frank L. Raschig, Principal Assistant Engineer, Division of Structures, Department of Public Service, Cincinnati.

"Construction of the Large Concrete Viaducts on the Lackawanna R. R.," C. W. Simpson, Resident Engineer, Lackawanna R. R., Columbia, N. J.

"Tests of Large Concrete Slabs by U. S. Office of Public Roads and Rural Engineering," Earl B. Smith, Associate Mechanical Engineer, Office of Public Roads, Washington.

Report of Committee on Reinforced Concrete Chimneys, Chairman, Harrison W. Latta, Engineer, The Cement Association, Philadelphia.

Wednesday Evening, Feb. 16.

Report of Committee on Concrete Roads and Pavements, Chairman, A. N. Johnson, Washington, D. C.

"Concrete Foundations for Pavements for Heavy Travel," Clifford Richardson, Consulting Engineer, New York.

"Essential Features for the Successful Construction of Concrete Highways," William M. Acheson, Division Engineer, State Highway Department, Syracuse, N. Y.

"The Construction of the Easton-Albentown Concrete Road," John T. Gephart, Jr., Division Engineer, State Highway Commission, Albentown, Pa.

"The Construction of the Toronto-Hamilton Highway by Day Labor," H. S. Van Acoyoc, Chief Engineer, Toronto, Ont.

"The Construction of the Du Pont Concrete Boulevard," Charles Upham, Chief Engineer, Georgetown, Del.

"Special Features in Pavement," R. C. Stubbs, President R. C. Stubbs Co., Dallas, Tex.

Thursday Morning, Feb. 17.

Report of Committee on Concrete Aggregates, Chairman, Sanford E. Thompson, Newton Highlands, Mass.

"Tests of Concrete Materials at Cincinnati," Prof. G. M. Braune, University of Cincinnati.

"The Chemistry of Portland Cement," George A. Rankin, Geophysical Laboratory, Carnegie Institute, Washington.

"How Shall a Rational Specification for Gravel Concrete Be Developed," C. C. Brown, Editor, Municipal Engineering, Indianapolis, Ind.

"Tests of Sands at the Structural Materials Research Laboratory," Duff A. Abram, Instructor in Charge of Laboratory, Armour Institute, Chicago, Ill.

Thursday Afternoon, Feb. 17.

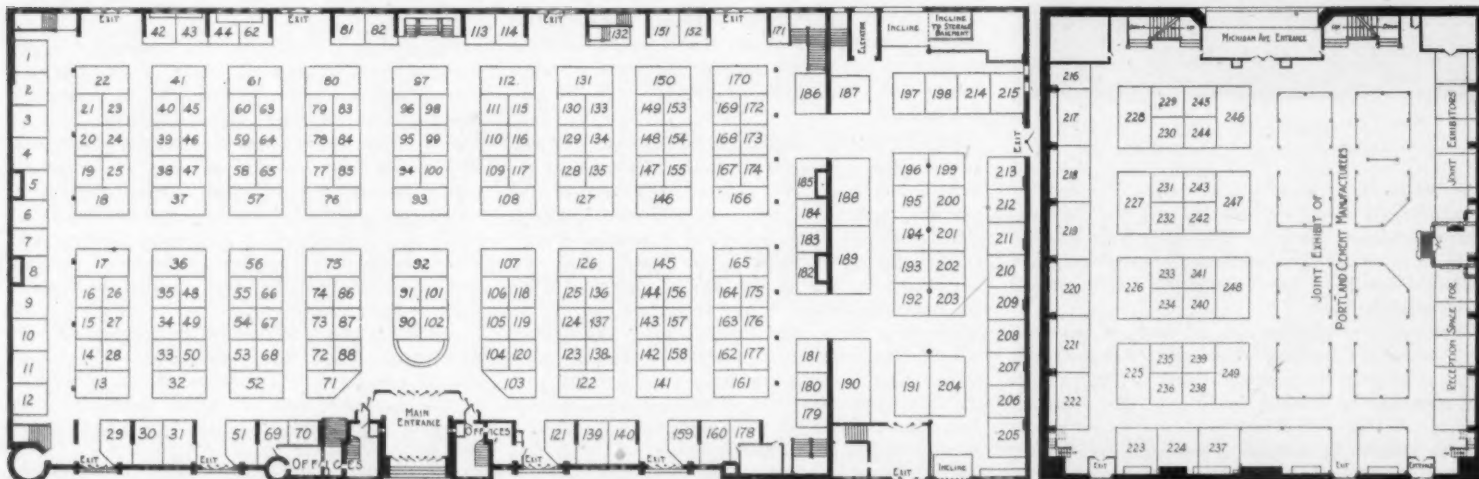
"The Design of Plain and Reinforced Concrete Sewers," W. H. Horner, Engineer in Charge of Design of Sewerage and Paving, St. Louis, Mo.

"The Fall River Concrete Conduits," Frederic H. Fay, Consulting Engineer, Boston, Mass.

"Concrete Construction at the Kensico Dam," Wilson Fitch Smith, Division Engineer, Board of Water Supply, Valhalla, N. Y.

"Reconstruction of the Austin Dam," Lamar Lyndon, Consulting Engineer, New York, and Frank S. Taylor, Construction Engineer, Austin, Tex.

"Middleboro Water Tower," George Sampson, Consulting Engineer, Boston.



FLOOR PLAN OF COLISEUM, COLISEUM ANNEX AND FIRST INFANTRY ARMOY, CHICAGO CEMENT SHOW.

CONFERENCE ON CONCRETE ROADS.

The program of the National Conference on Concrete Road Building which will be held in the Auditorium hotel Feb. 16, 17 and 18 is very comprehensive, consisting of a number of papers on important and practical road topics of a general character, and the reports of committees covering every feature and detail of highway construction. The ablest engineers and officials in the country are participating in the committee work, and the reports and recommendations are of the utmost importance to those who are studying road subjects.

The following list of topics, each handled by a committee with the name of the chairman in charge of the topic follows:

1. Drainage and Preparation of Sub-Grade: Hector J. Hughes, Chairman, Professor of Civil Engineering, Harvard University and Massachusetts Institute of Technology, Cambridge, Mass.
2. Economical Widths of Pavement and Shoulders: J. J. Cox, Chairman, Instructor in Civil Engineering, University of Michigan, Ann Arbor, Mich.
3. Problems of Design, Thickness, Crown and Grade: Ira O. Baker, Chairman, Professor of Civil Engineering, University of Illinois, Urbana, Ill.
4. Aggregates: D. A. Abrams, Chairman, Instructor in Charge, Structural Materials Research Laboratory, Lewis Institute, Chicago.
5. Handling and Hauling Materials and Water Supply: T. R. Agg, Chairman, Professor in Charge of Highway Engineering, Iowa State College, Ames, Iowa.
6. Organization of Concreting Crew: H. P. Gillette,



L. C. WASON.
President, American Concrete Institute.

Chairman, Editor-in-Chief, "Engineering and Contracting," Chicago.

7. Proportions of Materials and Consistency of Concrete: W. S. Gearhart, Chairman, Kansas State Engineer, Manhattan, Kan.
8. Mixing and Placing Concrete: Ernest McCullough, Chairman, Civil Engineer, Chicago.
9. Reinforcement: Richard L. Humphrey, Chairman, Consulting Engineer, Philadelphia, Pa.
10. Joint Location and Construction: George A. Ricker, Chairman, Ex-First Deputy Commissioner, New York State Highway Commission, Albany, N. Y.
11. Expansion and Contraction: F. E. Turneaure, Chairman, Dean, College of Mechanics and Engineering, The University of Wisconsin, Madison, Wis.
12. Finishing and Curing: Charles Whiting Baker, Chairman, Editor-in-Chief, "Engineering News," New York, N. Y.
13. Construction of Shoulders and Curbs: A. N. Johnson, Chairman, Highway Engineer, Bureau of Municipal Research, New York, N. Y.
14. Methods and Cost of Maintenance: A. H. Hinkle, Chairman, Deputy Highway Commissioner, Ohio State Highway Department, Columbus, Ohio.
15. Form of Specifications: A. R. Hirst, Chairman, State Highway Engineer, Wisconsin Highway Commission, Madison, Wis.
16. Cost of Construction: C. J. Bennett, Chairman, State Highway Commissioner of Connecticut, Hartford, Conn.
17. Estimating and Inspection Problems: A. Marston, Chairman, Dean and Director, Division of Engineering, Iowa State College, Ames, Iowa.

CONCRETE PIPE MEETING.

The American Concrete Pipe and Tile Association will hold its meeting at the Auditorium hotel, Feb. 17 and 18. While there has been wonderful

progress in this particular line the field is so great that it has hardly yet been touched.

The papers to be presented cover the promotion, sale and manufacture of concrete pipe and will give a broad insight into the business.

Meetings will be of interest, therefore, both to those engaged in the work and those who might find it a profitable field.

ILLINOIS DEALERS MEETING.

A strong program has been outlined by the Illinois Lumber and Builders' Supply Dealers' Association, whose meetings will be held at the Hotel Sherman, Feb. 15 to 17. This is one of the oldest organizations of supply men in the country and their meeting has been timed for the week of the cement show because all of them are more or less interested in and a part of the developments and uses of concrete. Many of the members are equally interested in other conventions that will be in Chicago during the same week, and a large attendance at this meeting is expected.

PIER CONTRACT FORGING AHEAD.

Victoria, B. C., Feb. 3.—With the sinking of another crib off Ogden Point, ten of the 3,000-ton caissons are now in place at the site of the new government piers. The big crib had previously been launched from the marine ways at the Rosebank plant of Grand, Smith & McDonnell, contractors for the piers, and with weather conditions favorable for the sinking of the structure in position, it was towed around from Esquimalt Harbor. After the valves had been opened, the caisson filled and settled into the desired position without any trouble whatever.

Altogether, fifty-four of these reinforced concrete cribs have been constructed for the two piers now under construction at Ogden Point. At the present time the work on the piers is all of a submarine nature, and it will be another year before they assume visible shape and proportions.

Good progress has been maintained by the contractors on this big contract during 1915. During the last twelve months the following work has been done in connection with the pier contract: All earth and rock excavation has been practically completed. The amount of rubble dumped for the pier foundations is placed at 147,000 tons. Two thousand cubic yards of broken stone, used for leveling off the foundations for the reception of the cribs, has been deposited. Nine cribs were sunk into position during 1915. The "fill" for these cribs amounted to 13,000 cubic yards, and the "backfill" 82,000 cubic yards. In the construction of the nine cribs, 11,000 cubic yards of concrete and 800 tons of steel were used.

SANDUSKY ENLARGING DIXON CAPACITY.

The Sandusky Portland Cement Co. is installing two large Maxecon mills and two large new type three-step Perfectecon separators at its Dixon, Ill., plant.

The company is noted for the thorough attention which it gives to every detail of its manufacturing and aims to have its equipment composed of modern and up-to-date units.

NEW CEMENT PLANT IN OPERATION.

The Cayuga Cement Corporation, of which J. G. White, of one of the largest engineering organizations in the world, is president, and J. G. Bergquist, of Universal Portland Cement fame, is a director, has begun operating its factory at Portland Point, N. Y. With an equipment selected by men of such great experience and ability, economical production should be assured.

Details of the whole installation are not known,

but it is understood that the grinding department consists of large Maxecon mills and tube mills for both the raw grinding and the clinker grinding.

LAWRENCE COMPANY ENTERTAINS VISITORS

New York, Jan. 26.—Charles A. Porter, superintendent of the works at the plant of the Lawrence Portland Cement Co., Siegfried, Pa., was elected a director of the company at the annual meeting held there today and was subsequently made third vice-president. Other directors in the company re-elected are Ernest R. Ackerman, Marion S. Ackerman, Townsend Rushmore, Frank H. Smith, F. L. Clark, all of Plainfield, N. J.; H. D. Brewer, J. E. Clark, and J. S. Van Middlesworth. The directors organized with Ernest R. Ackerman, president; Marion S. Ackerman, vice-president; Frank H. Smith, second vice-president; J. S. Van Middlesworth, secretary; Harry B. Munger, treasurer, and Edgar F. Sheppard, assistant treasurer. At the present time the capacity of the company's plants are taxed to the utmost to meet current business. Incidental to the annual meeting the company arranged a special train of six Pullman cars, running from Jersey City to the works, in which about 200 visitors, consisting



W. F. M. GOSS,
Chairman, Concrete Road Conference.

materials and other guests, were given a pleasant entertainment, consisting in part of a tour through the great mechanical operations of the cement mills.

DIXIE COMPANY RE-ELECTS OFFICERS.

At the annual meeting of the stockholders of the Dixie Portland Cement Co., of Chattanooga, Tenn., the old board of directors was re-elected with the exception of C. E. James, the number of members having been reduced from twelve to eleven. Following the stockholders' meeting the directors met and re-elected all of last year's officers. The re-elected officers and directors are: Richard Hardy, Chattanooga, president; G. W. Millen, Ann Arbor, Mich., first vice president; T. R. Preston, Chattanooga, second vice president; William Barnes, Chattanooga, treasurer; George Kilian, Chattanooga, secretary; F. H. Yost, Nashville; T. G. Garrett, Nashville; Dr. J. P. Gillen, South Pittsburgh; Capt. H. S. Chamberlain, Chattanooga; Leigh Hunt, Kansas City, and A. I. McLeod, Detroit, directors. Mr. James sold his holdings in the company several months ago.

T. L. Herbert and Sons, building material dealers, of Nashville, have opened a branch house in Springfield, Tenn. J. F. Cook will be in charge. A full line of building materials will be carried.

Lime Manufacturers Meeting at Cleveland

The fourteenth annual meeting of the National Lime Manufacturers' Association was held at Cleveland, Ohio, Feb. 2 and 3, and scored another high-water mark of enthusiasm and progress only comparable to its own high achievements amongst the trade associations in building material lines. The thirteen years of history of this association, as recorded from year to year in these columns, constitutes about all that there has ever been of progress in the lime industry. The records of previous centuries are the very next thing to silence about this important material. It is true that the uses of lime have been recognized and taken for granted as far back as human records reach into the dim past, for long before the first alphabet, for the purpose of keeping the records of early commercial transactions, lime was burned, slacked, mixed with sand and used as mason's mortar and for plastering by the Egyptians and Chaldeans.

Recent excavations in the country betwixt the two great rivers where the human race seems to have taken its origin have uncovered gigantic remains of an ancient city which by its antiquity even makes the pyramids of Egypt, Babylon and Nineva to seem like comparatively modern memories.

Upon studying photographs taken of the work of these early men it is perfectly clear and certain that the mortar beds and joints for the stone and the brick work is the same old product that we know so well, and doubtless produced by essentially the same means. Those structures existed long before the time of the great devastating flood, and are prehistoric by an unknown gap of silence which may be centuries or hundreds of centuries. Yet the unerring truthfulness of the photographs proclaim the permanent value of true masonry well laid in lime mortar beds.

Coming back to the possibility of records, with the building work that was done by the Phoenicians and their immediate successors, the Greeks, it's a long, long path, with devious windings and many changes of high light and deep shadow along the path of civilization to this twentieth century, and this new world, and this people of new ideals and ambitions. Yet in all the centuries there was no change, nor any important improvement in either the product or the process, of its production, or the methods of its use, up to the birth of the

National Lime Manufacturers' Association in 1903, in Cincinnati, Ohio. Then a few earnest and intelligent men came together to talk shop and to see if they could learn something from one another by a cooperative exchange of ideas and purposes as relating to the lime industry. At that time each one was very confident that his own institution had long

uct that was ever developed for the use of mankind.

Here is some record, some achievement, my countrymen, friends and companions.

MEETING OF THE HYDRATE BUREAU.

The official meeting of the Hydrated Lime Bureau, the subsidiary organization that is charged with the promotion of new and wider uses for hydrate was held on the afternoon of Feb. 1, and a report of Manager Norman G. Hough was received and discussed. It was voted that the work of the bureau had been very satisfactory, and it was decided by practically an unanimous consent to continue the work through another year by the same process of voluntary cooperative subscriptions.

The officers and managers were re-elected to continue the work, with Lawrence Hitchcock, chairman of the Executive Committee; Bernard L. McNulty, secretary; Charles Warner and Wm. E. Carson, Norman G. Hough, manager, and L. N. Whitcraft, chief engineer.

FIRST DAY'S SESSIONS—FEB. 2.

Promptly at 9:30 a. m. our popular leader, William E. Carson, brought down his gavel with a resounding rap, proclaiming the fourteenth annual convention open for business. The room was filled with nearly one hundred of the foremost men in the lime industry of America, together with a number of the most efficient technical men, who are giving their work to the development of the lime industry as incidental to the great natural resource of lime rock deposits, constituting so much of the natural wealth of the country.

Dr. Stratton, chief of the United States Bureau of Standards, and his very efficient corps of scientists, has recognized the broad gauged, uplift of the study of the product, and has given liberally of his and their efforts in lime research and practical application of the deductions therefrom.

The Papers Presented at the Meeting.

"The Development of the Compression Method of Measuring Plasticity and Sand Carrying Capacity of Lime," by Warren E. Emley, of the United



WILLIAM E. CARSON,
Re-elected Lime Chieftain.

been operating upon the only known and only possible good way to make the best lime and to find a market for the product. If not exactly this, something very like it.

Then and there was born a new thought to the lime industry, and it crystallized into a seed that was planted by organization. It was fertile soil, indeed, and well limed, if you please, now showing after thirteen successive years a most prodigious growth in the development of practical information, mechanical improvement and technical knowledge, beside which there is no competent comparison in the arts and crafts known to man.

The process of hydration, that great modern improvement for more broadly commercializing the product of the lime plant, has been introduced, developed and now universally recognized through the concentrated cooperation of the members of the association. Lime was a product of the merest local significance, each locality being blessed with the very best, of course, just like it was in the times of the Medes and Persians, and the mortar box angel was the supreme dictator of the quality of mortar, no matter who made the lime or where it came from. Of course, most of the lime was "burnt" and the balance was "burnt," too, if he felt like it, or didn't feel like it, whichever is right. There was no such thing as a lime merchant, for it was impossible for the dealer to handle lime at a profit. His profits had to invariably come out of claims and allowance from the lime burner. Lime had to be fresh enough to be hot from the kilns to be acceptable in some markets, and was delivered in carts with the mules on a trot. In other localities there were different features, but trouble all the time, that prevented lime burning always from being a real business.

The organization worked out problem after problem, and the progress in hydrating kept on improving, and with constant encouragement and exhortation it became good enough to meet with general recognition and adoption, and thus the breath of life as a modern industry was imported to the most venerable craft of lime making, the first rock prod-

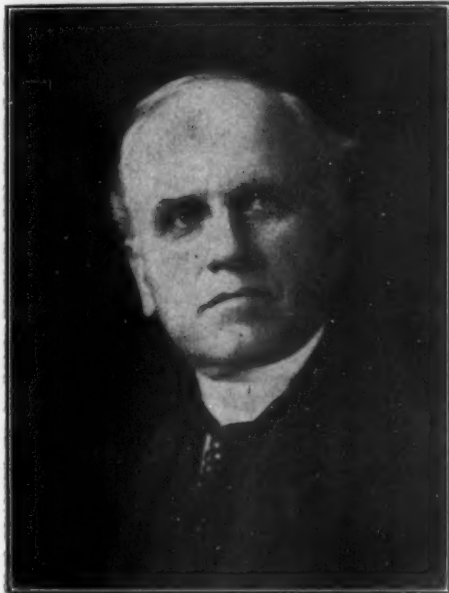


CHARLES WEILER,
The Accomplished Diplomatist.



LAWRENCE HITCHCOCK,
Aggressive Apostle of Progress.

States Bureau of Standards. This subject is one that has attracted very considerable attention for several years, and Mr. Emley found it necessary to devise an instrument with which to conduct comparative study because it was found very difficult to get even a good starting point. Mr. Emley differentiated between the term plasticity and working qualities, saying that after all, it is probable that plasticity is not the quality that he sought,



COL. C. W. S. COBB.
Who Has to Be Shown.

but more properly, an understanding of the spreading or practical working qualities of the lime paste and not plasticity as it is ordinarily understood in the arts, for such a quality really does not exist in lime paste, according to the best technique of that definition. The paper indicated progress and further study of the same subject will be pursued.

"Magnesia in Limestone," by G. F. Loughlin, from the geological branch, gave the geological reasons why there are differences in various samples of lime rock. A very instructive paper, dealing with the formation and composition of limerocks together with the natural processes by which they were produced.

"The Standard Barrel," by L. A. Fisher, of the United States Bureau of Standards. Copies of the Standard Barrel Act approved by Congress on March 4, 1915, were distributed to all the delegates and Mr. Fisher proceeded to interpret the application of the standard barrel law to the lime industry. The subject is one of vital importance in the lime trade, and elicited a very large amount of discussion. Lowell M. Palmer, of New York, read the points of difference in the New York law upon the size of barrels, and brought out the whole subject in a most efficient manner. Messrs. Pollock of Kansas City, Mo.; Hitchcock, of Cleveland, and Dittlinger, of New Braunfels, Texas, concurring in the main with Mr. Palmer's suggestions that two sizes of barrels were needed and necessary in the lime trade, and that lime is a commodity which must really be sold by weight. The barrel matter was referred to a committee consisting of the gentlemen named, who afterwards, reported by a recommendation that the lime association adopt as its standards a small barrel, consisting of 200 pounds gross and 180 pounds net, with a tolerance of five pounds, and a large barrel containing 280 pounds net, 300 pounds gross, with a tolerance of five pounds, all barrels to be branded with the net and gross weights, and sold by the weight.

After the buffet luncheon which was served in the hall, Lawrence Hitchcock, chairman of the executive committee of the Hydrated Lime Bureau, re-

ported on the scope and progress of the work that the bureau has undertaken and accomplished.

A resolution of thanks was offered by Charles Warner, of the Bureau of Standards, for its valuable coöperation in connection with the work of the bureau, which was unanimously adopted.

Norman G. Hough, manager of the work of the bureau, told in detail of the field work and the broad policy which has governed its application. He mentioned the booklets and pamphlets written and compiled by Mr. Hitchcock, and a book by Dr. Ellis W. Lazell, on the subject of the use of hydrate and the history of the same.

There was very general satisfaction expressed on all sides for the intelligent and able way in which the government and practical work of the bureau had been conducted.

"Importance of Lime in Agriculture," was the next paper by G. J. Wilder, manager of the Agricultural Lime and Limestone Association of Columbus, Ohio. This paper was illustrated by a number of lantern slides, showing the practical values of liming various crops such as alfalfa and other legumes, corn and grasses. Mr. Wilder is one of the most able soil experts of the country, and practically connected with the promotion of lime and ground limestone for soil improvement. His argument very clearly supported the importance of lime for the liberation of plant food in practically all agricultural procedure. It was an able paper, extremely interesting and instructive.

"The Use of Lime in Stuccos and Rich Mortars," by Prof. Alfred H. White, of the University of Michigan, was also illustrated by lantern slides, some of which showed lime mortar used as exterior plasters that have been in service in the university buildings for seventy-five years and are still in the finest condition. The paper also went on to show, with illustration and with argument, the value of the lime addition to all Portland cement mortars when used for exterior purposes.

"How Lime Can Be Established in the Plaster Field," by W. C. Hay, of Los Angeles, Cal. The paper was illustrated with a number of films showing the construction of several highly successful mortar mixing plants, which have been built by Mr. Hay, in recent years, on the Pacific coast, and one in particular, now under construction, for C. P. Jamison, of Los Angeles. It consists of a systematic slacking of lime in concrete vats and mixing the same with exactly proper proportions of sand and Keene's cement, so as to produce the most perfect working plaster. Mr. Hay has had a great



A. H. LAUMAN, JR.,
Who Inherits Enthusiasm.

deal of experience in all types and kinds of plaster and has manufactured and used gypsum plasters extensively. He demonstrated his broad and expert knowledge of the subject, and with many illustrations demonstrated the successful use of the plasters manufactured in his plant in a large number of important buildings in the principal West coast cities.

The Kelley Island Lime and Transport Co.'s



CHARLES WARNER.
One of the Sturdiest Pioneers.

plants and methods, by F. A. Jones, manager of operations, and Henry Angel, sales manager, proved to be a movie entertainment, in which all of the details and important mechanical parts of the great lime plants at Marblehead and White Rock, where the famous "Tiger" brand is manufactured, were thrown upon the screen with explanations.

SECOND DAY, FEBRUARY 3.

The previously announced excursion to the Marblehead plant of the Kelley Island Lime and Transport Co. was brought out by Mr. Jones of that concern, who requested that those members who expected to make the trip register in order that railroad accommodations for the occasion might be estimated and provided for. This was received with a round of applause, and the irrepressible Col. Cobb desired to know if all of the secrets and exquisite points of excellence of "Tiger" hydrate were to be exposed to the visitors. On being assured that the visitors could go as far as they liked, the Colonel smiled gratification.

"Chemically Correct Hydrate of Lime on a Commercial Basis" was the title of a paper presented by W. Crow of the Schaffer Engineering and Equipment Co., Tiffin, Ohio, and was a technical paper on the production of lime and its transfer into hydrate by mechanical means, having a flexibility of adjustment which is recommended as a way of securing the very highest results in hydrating. The machine selected in illustration was a Schaffer hydrating machine which has already been illustrated in these pages, and was consequently more or less familiar in detail and principle to all who heard the very excellent and well written paper.

"A Practical Test for the Working Quality of Lime," by Warren E. Emley, consisted mainly of well worked out suggestions with regard to the further study of the working quality feature, which has long proved to be very elusive.

"How to Improve the Selling End of the Lime Business," by Peter Martin, of the Ohio and Western Lime Co. On such a subject your Uncle Peter

is there with the goods, for from the crown of his head to the soles of his feet he is a salesman. The paper was artistic, consisting of the recital of an apocryphal dream, in which undefiled confidence reigned supreme and coöperation reached perfection. It was a beautiful business picture, a state and condition much to be desired, and the climax consisted of a suggestion that it is all in our own hands collectively whether we get the sweet things of life or lose them. After waking up, there was the beginnings of a resolve to try for the delectable condition that was outlined in such a masterful way; because the comfort and confidence and the benefits of coöperation founded thereon is the most attractive ideal of modern business, by no means impossible of achievement.

Henry M. Camp, of the Lime Service Bureau, Washington, D. C., on invitation, described the co-operative system of filing quotations which are issued as impartial bulletins that have gone a long way in the direction of building confidence, with indications that the dream can be made to come true. He spoke of the testimonials that have come into his bureau from the factors coöperating therewith, and said that this is no time to ignore such practical results as these indicated. Mr. Camp is convinced that the same or a very similar system could easily be worked out for application to the industry in all parts of the country.

"We are getting there," cried President Carson. "We are growing. These are big, broad and magnificent ideas that are destined to make us more efficient and more successful as lime manufacturers."

"Modern Appraisal Service," by W. A. Evans, of the American Appraisal Co., outlined the value and importance of scientific inventories and definite systems of valuation built thereon, as one of the adjuncts of modern industrial development, now well recognized by the biggest people in all lines.

President Carson next introduced William J. Radditz as the president of the Keeley Institute, to talk on the subject of "Grape Juice and What It Will Do to You." This was a fun-making number of the program, and Prof. Radditz took a whack at Bryan and Roosevelt and made everybody laugh for twenty minutes solid. He was voted a complete success as the meeting adjourned for luncheon.

In resuming the program for the last lap of the meeting President Carson said, "We are assembling with the group of papers now coming before us the practical features which touch upon the policies of

conducting our business that are most important in a suggestive way to all of the heads of enterprises. There is enormous value in the information that we are developing, and its application depends upon our thorough understanding of the same."

He then introduced Walter S. Sheldon, of New York, who is well known and highly esteemed by all of the lime manufacturers, who recall that for a number of years he was in the lime business and an active and able member of the Association.

"Cost Keeping in Lime Plants" was the subject of Mr. Sheldon's paper, and it was handled in a very exact way, because it was built in part from practical observation and experience as well as upon the best accepted principles and teachings, and amounted to a first class suggestion for a uniform cost system.

"The Application of Central Station Power of Lime Plants and Quarries," by R. D. Donaldson, was the next paper, and related to improvements and developments in the application of electric power in large manufacturing establishments, suggestively connecting the same in a practical way to lime producing operations.

At this point the report of the nominating com-



PETER MARTIN,
With Parables of Beautiful Dreams.

ton, Del.; Lawrence Hitchcock, Cleveland, Ohio; Bernard L. McNulty, Mitchell, Ind.

"Relative Merits of Burning Lime with Wood, Coal, Coal Gas and Natural Gas," by Warren E. Emley, proved to be one of the most interesting and important papers that was ever presented for the consideration of the organization, because it handled the important and initial subject of burning from an entirely new angle. While discussing the technicalities of combustion, it dwelt more upon the result getting feature of the process and operation. In a later issue we expect to have Mr. Emley's complete study of this subject to secure the broadest possible discussion of the burning topic.

"Investigation of Fire Resisting Materials, Particularly as Related to Limestone Concrete," by Walter A. Hall of the United States Bureau of Standards. The paper amounted to a study of test cylinders of limestone concrete in which a broad deduction is drawn that destructive heats do not penetrate more than half an inch beyond the outside surface of well-made limestone concrete in such a period of time as is represented by the average fire. While not conclusive in character, the paper indicated that limestone concrete is to be considered as the very highest known fire-resistant structural material.

The meeting then resolved itself into an executive session, discussing the methods of application of the information developed in the meeting, and a new suggestion for the better development of the executive features of the future meeting was adopted.

Such is a brief chronicle of the public features of the splendid program that made a very busy concentration of energy, thought and discussion for a two days' meeting. In peace and harmony, with much enthusiasm the convention was adjourned sine die, by the usual resounding rap of our president's gavel.

THE REGISTERED ATTENDANCE.

P. G. Kemp, Louisville Cement Co., Louisville, Ky.
J. H. Lemmon, Louisville Cement Co., Louisville, Ky.
W. E. Healey, Rockland & Rockport L. Co., Boston, Mass.
Charles Weiler, Union Lime Co., Milwaukee, Wis.
G. F. Loughlin, U. S. Bureau of Standards, Washington, D. C.
E. B. Smith, Marlon Mach. F. & S. Co., Marlon, O.
Alfred White, University of Michigan, Ann Arbor, Mich.
Harold L. Smith, Vermont Marble Co., Proctor, Vt.
Ernest H. West, Vermont Marble Co., Proctor, Vt.



WILLIAM URSHELL,
Stalwart Member of the Progressives.

mittee was received and was presented by Chairman Charles Weiler, of Milwaukee. He had a graceful and pointed compliment for each of the gentlemen that he placed in nomination, which could not have been done so nicely by anyone else, and it was not apparent that the entire list consisted of the renomination of the incumbent officers until the close, when everybody in the room was beaming with pleasure at the florid remarks, particularly with which he crowned the brow of the popular leader of the lime industry, Mr. William E. Carson. The election was accordingly unanimous for the whole list, as follows:

William E. Carson, president, Riverton, Va.
Martin Deeley, first vice-president, Lee, Mass.
J. F. Pollock, second vice-president, Kansas City, Mo.
A. H. Lauman, third vice-president, Pittsburgh, Pa.
Fred K. Irvine, secretary, Chicago, Ill.
C. W. S. Cobb, treasurer, St. Louis, Mo.
Executive Committee: William E. Carson (ex officio), Riverton, Va.; Charles Warner, Wilming-



BERNARD L. McNULTY,
An Old Head on Young Shoulders.

J. M. Gager, Gager Lime & Manufacturing Co., Chattanooga, Tenn.
 J. F. Pollock, Ash Grove Lime and Portland Cement Co., Kansas City, Mo.
 A. M. Warren, Jesse Allen Lime Co., Burns, Tenn.
 W. F. Fitzroy, Ste. Genevieve Lime Co., St. Louis, Mo.
 J. D. Heimlech, LeRoy Lime Co., Leroy, N. Y.
 Ph. J. Dauernheim, Glencoe Lime and Cement Co., St. Louis, Mo.
 T. J. Brown, Caledonia Marl Co., Caledonia, N. Y.
 A. Ives, Security Cement and Lime Co., Hagerstown, Md.
 F. J. Wertelewski, National Mortar and Supply Co., Pittsburgh, Pa.
 William F. Stolzenback, National Mortar and Supply Co., Pittsburgh, Pa.
 H. R. Zorn, National Mortar and Supply Co., Pittsburgh, Pa.
 E. J. Heimerdinger, Louisville Cement Co., Louisville, Ky.
 A. H. Lauman, National Mortar and Supply Co., Pittsburgh, Pa.
 F. M. Becket, Union Carbide Co., Niagara Falls, N. Y.
 A. M. Glasgow, Tennessee Marble Lime Co., Knoxville, Tenn.
 Edgar T. Belden, Dutchess County Lime Co., Dover Plains, N. Y.
 Irving Warner, Charles Warner Co., Wilmington, Del.
 Joseph N. Blum, K. B. Pulverizer Co., New York.
 H. Dittlinger, Dittlinger Lime Co., New Braunfels, Texas.
 A. H. Lauman, Jr., National Mortar and Supply Co., Pittsburgh, Pa.
 J. M. Deely, Lee Lime Co., Lee, Mass.
 M. H. Deely, Connecticut Lime Co., Lee, Mass.
 W. O. Crow, Schaffer Engineering and Equipment Co., Tiffin, Ohio.
 J. C. Schaffer, Schaffer Engineering and Equipment Co., Tiffin, Ohio.
 W. W. Rhodes, Schaffer Engineering and Equipment Co., Tiffin, Ohio.
 Fred K. Irvine, ROCK PRODUCTS AND BUILDING MATERIALS, Chicago, Ill.
 B. B. Williams, Marblehead Lime Co., Chicago, Ill.
 W. C. Hay, Los Angeles, Cal.
 L. H. Hartman, Urschel-Bates Valve Bag Co., Toledo, Ohio.
 Peter Martin, Ohio & Western Lime Co., Huntington, Ind.
 J. R. Leo, Palmer Lime and Cement, New York.
 T. H. Taggart, Agricultural and Commercial Lime Co., Canton, Ohio.
 H. V. Briggie, O. C. Barber Mining and Agricultural Co., Canton, Ohio.
 J. W. Wirth, Agricultural and Commercial Lime Co., Canton, Ohio.
 Lowell M. Palmer, Jr., Palmer Lime and Cement Co., New York City.
 G. J. Nicholson, White Marble Lime Co., Manistique, Mich.
 John Nelisse, Kelley Island Lime and Transport Co., Cleveland, Ohio.
 F. A. Jones, Kelley Island Lime and Transport Co., Cleveland, Ohio.
 W. M. Harsh, Clyde Hydrator Co., Duluth, Minn.
 A. J. Earl, Kelley Island Lime and Transport Co., Cleveland, Ohio.
 O. C. Barber, O. C. Barber M. & F. Co., Canton, O.
 Bernard L. McNulty, Mitchell Lime Co., Mitchell, Ind.
 Henry S. Spackman, Aluminate Patents Co., Philadelphia, Pa.
 S. L. Briggie, O. C. Barber Mining and Fertilizer Co., Canton, Ohio.
 Charles Warner, Charles Warner Co., Wilmington, Del.
 Warren E. Emley, U. S. Bureau of Standards, Pittsburgh, Pa.
 W. A. Evans, American Appraisal Co., Milwaukee, Wis.
 Walter S. Sheldon, New York.
 Kenneth N. Seavers, Harbison-Walker Co., Pittsburgh, Pa.
 H. J. Russell, T. W. Wait Lime Co.
 C. W. S. Cobb, Glencoe Lime and Cement Co., St. Louis, Mo.
 C. H. Owens, John D. Owens & Son, Owens, Ohio.
 Luther Keller, Keller Co., Scranton, Pa.
 Charles Kritzer, The Kritzer Co., Chicago, Ill.
 Wm. L. Urschel, The Woodville Lime and Cement Co., Toledo, Ohio.
 T. G. Kennedy, Elora White Lime Co., Elora, Ont., Canada.
 W. L. Heisey, High Calcium Lime Co., Lancaster, Pa.
 A. M. Tennant, Conneaut Lake Marble Co., Conneaut, O.
 L. R. Wilson, Lakewood Engineering Co., Cleveland, Ohio.
 W. E. Carson, Riverton Lime Co., Riverton, Va.
 Lawrence Hitchcock, Federal Lime and Stone Co., Cleveland, Ohio.
 Henry Angel, The Kelley Island Lime and Transport Co., Cleveland, Ohio.
 William J. Paul, Hydrated Lime Bureau, Pittsburgh, Pa.
 Norman G. Hough, Hydrated Lime Bureau, Pittsburgh, Pa.
 O. H. Smith, Cedarville, Ohio.

John J. Urschel, The Woodville Lime and Cement Co., Toledo, Ohio.
 D. H. Nichols, ROCK PRODUCTS AND BUILDING MATERIALS, Chicago, Ill.
 T. C. Wellsted, Kelley Island Lime and Transport Co., Cleveland, Ohio.
 Fred W. Kuhl, Kelley Island Lime and Transport Co., Cleveland, Ohio.
 E. C. Roberts, Kelley Island Lime and Transport Co., Cleveland, Ohio.
 C. G. Spencer, National Lime and Stone Co., Carey, Ohio.
 Henry Camp, Lime Service Bureau, Washington, D. C.
 Ambrose Tomkins, Tomkins Bros., Newark, N. J.
 John Kennedy, Standard White Lime Co., Guelph, Ont.
 H. W. Smith, Charles Warner Co., Wilmington, Del.
 J. King McLanahan, American Lime and Stone Co., Hollidaysburg, Pa.
 A. Y. Gowan, Lehigh Portland Cement Co., Allentown, Pa.
 James W. Ash, Union Lime Co., Milwaukee, Wis.
 G. J. Wilder, Agricultural Lime and Lime Supply Association, Columbus, Ohio.
 John Herzog, John Herzog & Sons, Patterson, N. J.
 L. A. Fisher, U. S. Bureau of Standards, Washington, D. C.
 William J. Radditz, Cleveland, Ohio.
 J. F. Black, Marblehead Lime Co., Chicago, Ill.
 R. C. Brown, Cook & Brown Lime Co., Oshkosh, Wis.
 Gordon Willis, Peerless Lime Co., St. Louis, Mo.
 Thomas H. Warren, Tennessee Cement and Lime Co., Nashville, Tenn.
 H. W. Smith, Charles Warner Co., Malvern, Pa.

THE TRIP TO MARBLEHEAD.

According to announcement the night before, at a very early hour Wednesday morning there was some rustling amongst the delegates and filtered water tasted good. It was a scramble to get to the Lake Shore depot at 7:40, and then it was found



LAKEWOOD CARS AT THE INCLINE, MARBLEHEAD.

that the train was an hour late, but everybody felt good about it, because A. J. Earl, master of ceremonies, had a cordial smile for everybody, and Chief Engineer Jones was on hand to take the lead in the inspection of the big properties at Marblehead. Then there was "Sandy" Roberts, who brought his bagpipe along and a full collection of Harry Lauder impersonations. As a matter of fact, in some things he is better than Harry himself.

There were about three dozen of the delegates to the convention who availed themselves of the generous hospitality of the Kelley Island Lime and Transport Co., and the party was no sooner seated in the special car till cigars were passed around and there was smoke enough for any well regulated lime plant for the balance of the trip to Marblehead Junction, where the private railroad of the company joins the main line of the Lake Shore. There was a full-sized Lake Erie breeze with needles in it when the party arrived at the center of the works. Here Captain Jones took the lead and like a flock of ducks the party followed to inspect the drawing arrangement and cooling floor, the firing platform, and burning arrangements of the big battery of kilns, each producing nine tons per day.

The shipping gang was handling barreled lime, cooping and loading to cars from the cooling floor. In spite of the winter season and the cold breeze there was something like summertime activity in the regularity of all of the operations. The Marblehead plant burns a high calcium lime which has

an established reputation that runs back to the very early days of the first settlement of Northern Ohio. The location itself is a very historic one, for it is only a few miles to Put-in-Bay, and the place where Commodore Perry, with his little improvised boats, gained a victory over the British fleet and won for the United States the right to dominate all the waters of the Great Lakes.



HOSPITAL AND OFFICE, MARBLEHEAD.

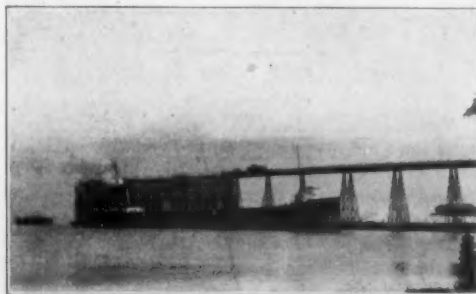
The lime operations at Marblehead owned and operated by the Kelley Island Lime and Transport Co. constitute the consolidation of several lime activities which previously existed in a small way, and it has grown into one of the largest and most important lime plants in the country.

The quarries are operated with every possible application of labor saving machinery, being several square miles in extent. The railroad equipment especially has been developed to the acme of economy, with specially built engines for climbing the long inclines, and side-dump cars which are loaded by steam shovels so as to get the maximum tonnage of materials with the minimum of manual labor. A large part of the drilling is done with well drills, a number of clippers, besides smaller air-driven drills to take care of the pop-shooting whenever that is necessary.

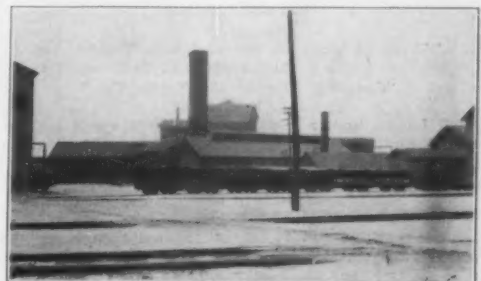
A complete crushing plant is another feature adjunct to the lime operations and connected with the railroad system of the plant, which in itself amounts to a comprehensive yard, and in many respects resembles a city traffic terminal, although all of the trains of raw material, as well as the trains of out-bound loads, are part of the operations of the one industry.

The office building of the works is constructed of limestone and laid in lime mortar, which, although the building is some forty years old, makes a very perfect showing.

A very attractive feature of the works is the company's private hospital, built and operated for the purpose of giving injured employees and other people of the village as well, the benefit of the best modern hospital equipment and medical and surgical attention. Architecturally the hospital is a gem, fireproof, being built entirely of concrete. The outside is being veneered with buff Darlington brick and cast concrete trimmings. The interior floors are all of concrete, the roof is also concrete and the partitions and ceilings are plastered with lime mortar, after the formulae of the Hydrated Lime Bureau, and all of the floors, walls and ceilings are appropriately tinted to make a very artistic



WEST BAY PIER, KELLEY ISLAND.



POWERHOUSE, MARBLEHEAD.

and restful effect. The equipment is complete in every respect, including X-ray photographic apparatus, a very complete pharmacy, and ward rooms, large, light and comfortable. The heating, water and disposal service are perfect in all their appointments. Every one of the visitors was impressed with the perfection of the arrangement as well as the evidence of detail which were in evidence on every hand.

A very acceptable and tasty luncheon was served from the culinary department of the hospital, consisting of ham sandwiches, coffee and other tasty things.

After luncheon the visitors made a tour of the roundhouse, powerhouse, cooper shop and ware-



GENERAL VIEW OF WHITE ROCK PLANT.

house and then rounded up a very pleasant day by inspecting the great quarries in operation from many different vantage points. Only the hurried scatteration of the party to catch departing trains prevented the expression of the feeling of all the guests by three rousing cheers of appreciation to our hosts, for they already have the tiger.

KELLEY ISLAND MEN GET TOGETHER.

A dinner was given by President John A. Kling of the Kelley Island Lime & Transport Co. to the superintendents of plants and office employees at Cleveland, Ohio, on Jan. 25. After the dinner, the employees visited one of the local theatres as the guests of Mr. Kling. The following day the superintendents were shown moving pictures of the various plants and, at the request of the president, made interesting and valuable suggestions and comments relative to their display.

The menu which was served the banqueters at the Cleveland Athletic Club was uniquely printed in the following style:

GET-TOGETHER-GATHERING
THE KELLY ISLAND LIME & TRANSPORT COMPANY
January 25, 1916.
DINNER—6:00 p. m.
THE CLEVELAND ATHLETIC CLUB.
WE WILL EAT.
TIGER HYDRATED LIME
Fluxstone Open Hearth Rip Rap
LUMP LIME
(Served Hot)
Asphalt Dust Ground Toledo Lime
AGRICULTURAL LIME RAW OR BURNED
MASONS HYDRATE
(Served Cool)
Imported VIENNA Lime Cigars and Cigarettes
Doubled Burned Dolomite
WE WILL HEAR
MR. KLING
Address of Welcome, introducing as Toastmaster,
MR. ANGEL
"Squaring it with the Traffic Cop."
MR. ROSSITER
Well known hunter and our guest, will speak for ten minutes on "Rabbits I have seen," and for as long as he can on "Rabbits I have shot."
MR. OHLEMACHER
"Sand suckers and others."
MR. EARL
A solo entitled "Please drive the nails down in the car, or else the sacks will leak."
(For God's sake, ship at once.)
MR. DERINGER
A song, "Grape Juice—That's All."

MR. HARDTLA
Scientific contribution, "Resacking Asphalt Dust for use as agricultural lime."

MR. JONES
"My experience as a Sportsman."
(Illustrated with views of Michigan Mosquitoes slain by the speaker.)

MR. WHELAN
"Asphalt Dust," profit per ton and future possibilities.
MR. NELISSE

Debate—between himself and his super-self. Should a P. A. accept gratis rubber matting for his pool table from a rubber goods salesman who will use the gift as a club for future orders?

MR. BRUNNER
A ballad, "I can't turn down the screenings, but dolomite."

MR. KUHL
"How I keep my health."
MR. ROBERTS

This is no joke. This bird is really going to have to deliver as follows:

"If I could be by her."
"Bert Williams in the pulpit."

The Action of Portland Cement In Lime Mortar.

By Albert Zimmerman.

In a paper published in ROCK PRODUCTS AND BUILDING MATERIALS, Sept. 22, 1915, I called attention to the effect of smaller quantities of ten to twenty percent of Portland cement added to hydrated lime for making lime mortar and lime plasters, of the marked loss in strength after six months exposure to the air, showing very much less strength than the straight hydrated lime mortars and plasters, that they were soft and readily disintegrated at the slightest pressure to a sandy form, and later investigation has shown the lime and cement in a crystalline form, without the appearance of any colloidal character.

These mortars and plasters were made with a clay free sand and they gradually dried to a porous condition, which allows of the air to penetrate, for the active influences of the carbon dioxide contained in the air. Lime has a strong affinity for carbon dioxide, and combinations of lime as they make the active constituents of cement, as calcium aluminate and calcium silicate, are readily changed by carbon dioxide, which has a greater affinity for the lime than either the silica or the alumina, liberates these and renders the cement inert in proportion to the conditions of exposure, to the carbon dioxide in the presence of moisture or dampness, the porosity of the mass having the greater influence to allow of this reaction.

This reaction causes the changes in the mortar containing the smaller proportions of cement with the hydrated lime, and the silica and alumina separated in this condition are not in a colloidal form. This may readily be seen by suspending cement in water and passing carbon dioxide into the mixture until the lime is saturated, the precipitate will be in a dense form and is rendered entirely inert, and no longer sets with water, having lost all its life. As the cement constituents during this change lose all their colloidal properties, they seem also to destroy what little colloidal action the lime possesses, and this effective value of both is destroyed.

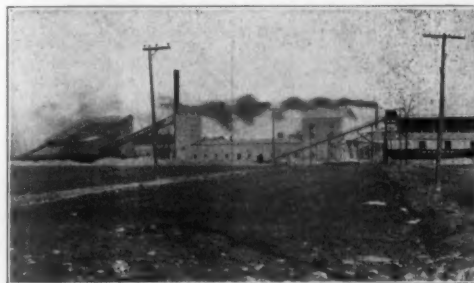
Lime when pure shows a colloidal action; a pure hydrated high calcium lime in a neat test shows very good strength and this is reduced as the impurities increase, and prevent the formation in the slacking process of more finely subdivided, more or less colloidal product, and this would indicate that the impurities influence a physical and not a chemical change.

With the increase of cement to make equal parts of cement and hydrated lime for making mortar, the good effect of both constituents develops to greater compactness with less porosity, with good strength, which is more developed as the hydrated lime is reduced to ten to fifteen per cent of the cement, as has been established by authorities, Spackman and others, to give cement its very best qualities.

That there is some change of the active con-

stituents of cement by the carbon dioxide may also be observed, when the surface of fresh concrete has been exposed to the air for several hours a film of lighter color is formed, and this consists of carbonate of calcium alumina and silica and acts as a protective layer against further deeper influences into the concrete by the carbon dioxide.

This film also to some extent prevents evaporation of the water from the concrete, but it has one drawback in that it prevents the bond between an older, longer exposed surface of concrete with one that is new and fresh, as it contains the cement constituents in an altered inert form. A small percent of hydrated lime has been found to improve the qualities of concrete and cement mixtures as shown by many authorities upon cement, and this



ROTARY KILN PLANT, WHITE ROCK.

no doubt is influenced in part by its property of having a stronger affinity for carbon dioxide and preserves the active cement constituents, and this action is intensified by being more penetrating and reducing porosity.

PACIFIC COAST LIME NEWS.

San Francisco, Feb. 3.—The old power barkentine "Archer," which has been operated for many years in the lime trade from Roche Harbor to Puget Sound ports and occasionally to San Francisco, by the Tacoma & Roche Harbor Lime Co., has been sold to enter the South American trade.

The Spreekels Sugar Co. has closed the deal for the purchase of 86 acres of lime country near Applegate, Cal., and will develop the lime on a large scale for use in its refinery.

E. E. Neff, a building material man from El Paso, Tex., has been investigating the prospects for a lime kiln near Fresno, Cal.

The Idaho Lime Co. and F. T. Crowe & Co. of Spokane, Wash., have announced a consolidation of their sales departments in a new company to be called the Consolidated Supply Co. A full line of material will be carried.

LIME FOR SPRAYING FRUIT TREES.

The Pacific Lime & Plaster Co., of San Francisco, Cal., reports a lively business for this time of year. A great deal of lime is being used at present for spraying fruit trees, in conjunction with other chemicals, the amount required running into a considerable tonnage, and the company's plant near Sonora is well located for the fruit districts in the interior of the state. The building end of the business in that section also is picking up in good shape, being much better than it was six months ago, in spite of the heavy rains.

HOUSE PASSES GOOD ROADS BILL.

Washington, D. C., Jan. 25.—By a vote of 281 ayes to 81 noes the House today passed the Shackleford good roads bill, appropriating \$25,000,000 for federal coöperation in road building between the state and federal governments.

The states would share in the appropriation on the basis of their population and the number of their postroads. The money would be disbursed through the various state highway commissions.

SAND and GRAVEL

Indiana Sand and Gravel Men Organize

Sand and gravel producers of the state of Indiana assembled at the hotel Severin on Thursday, Feb. 3, and reorganized the Indiana Sand and Gravel Producers' Association.

When the gavel of President H. C. Hoffstetter called the meeting to order, there were present twenty-three producers, representing practically every section of the state, and all of whom had come for the purpose of effecting a permanent organization and establishing permanent headquarters in Indianapolis.

The president's address reviewed the work accomplished at the annual meeting last year, as well as the mid-summer meeting, and cited the present and future needs of the organization. A committee on financial emergency was appointed and in less than fifteen minutes the obligations of the old organization were satisfied and the pathway made clear for a reorganization on a permanent basis. In the discussion which took place, it developed that there is a strong sentiment among members of the sand and gravel industry in the state that much benefit can be derived from an organization which will, in addition to promoting the industry, investigate the costs of doing business, freight rates, standardization of specifications, grading of materials and their proper uses.

O. T. Owens, of Indianapolis, pointed out the dependency of one man upon another in private, as well as in public life. He said, in part: "Severally we can hope to do business as we have been doing it. When acting alone we cannot hope to conduct our business in any other manner. I can't call to mind any industry that does business without an organization to protect that industry and the men in it. At present we are at the mercy of everyone and we must organize for mutual benefit, mutual profit and the improvement of our methods."

The sentiments of others are to be founded in the following statements:

"We must know our costs. We must know what it costs us to put a yard of material on the car. Good healthy competition doesn't hurt anyone. Good legitimate competition helps the trade. We do not want exorbitant prices, but we ought to get a living out of our business. One thing which will help the entire industry, as well as the contractors who use our material in road work, as well as the tax payers who pay for it, is a set of standard specifications. It pays to advertise if we know what we have to sell. By getting together we can materially assist each other by generally advertising the material we produce."

One of the producers stated that under existing conditions contractors cannot, at all times, depend upon figures submitted to them before a letting, and it seems to be the opinion of the contractors that if the sand and gravel men were organized and knew their costs, there would be a more safe feeling that when they quoted prices at a letting they could secure the material at the prices previously submitted.

After every man present had been given an opportunity to express his opinion a committee, consisting of E. G. Sutton, B. E. Neal, A. M. Brown, L. R. Witty, and H. M. Cooper was appointed to

formulate a plan of procedure. The committee immediately adjourned and the meeting took a recess until Chairman Sutton returned with recommendations that a permanent organization be effected and outlined a plan of organization and a governing body.

The recommendations were acted upon and every detail discussed, with the result that it was definitely decided to organize a permanent body to be



H. C. HUFFSTETTER,
President, Indiana Sand and Gravel Producers' Association.

known as the Indiana Sand and Gravel Producers' Association, and which shall be incorporated under the laws of the state of Indiana; that the organization have as officers, a president, vice president, a treasurer and a governing board of seven members. A secretary, who will give all of his time to the welfare of the association, will be employed, and provided with an office in the city of Indianapolis.

A committee, consisting of Judge J. H. Swango, P. Stewart and L. R. Witty, all of Terre Haute, was appointed to prepare articles of the association and to report at the meeting which will be held in Indianapolis on Feb. 21.

The following officers were elected for the ensuing year:

H. C. Huffstetter, Indianapolis, president.
E. G. Sutton, Williamsport, vice president.
B. E. Neal, Indianapolis, treasurer.
H. M. Cooper, Wolcottville; M. Theobald, Vincennes; H. E. Blasingham, Logansport, and the officers constitute the board of governors.

G. A. Olsen, representing ROCK PRODUCTS AND BUILDING MATERIALS, recited the experience of other organizations in the building and road material business and the reasons for their success, congratulated the men on the personnel of the sand and gravel industry of Indiana and pledged the coop-

eration of this publication in promoting the industry and its organization.

T. W. Kelly, business manager of the Publicity Bureau of Indiana Contractors, said among other things, "If men producing sand and gravel don't protect their own material, you can't expect others to do it."

The meeting then adjourned to reassemble in Louis XIV room for the banquet.

The Banquet.

The banquet of the association was held in the best and most popular dining room of the hotel and was the result of much thought and planning on the part of the committee in charge of arrangements. The menu included many delicious dishes which were served in the most epicurean manner. From the crabmeat cocktail to the demi tasse, every article of food was pronounced most palatable and met with great favor on the part of the men who had been in session for over four hours. The cigars which Secretary V. G. Pogue passed had the proper aroma and enabled the producers to better enjoy the chalk talk by "Chic" Jackson, the originator of the "Bean" family, and the maneuvering of a pair of shears in the hands of M. Davis as he presented white silhouetted figures on a black background. Both of the cartoonists were aware of the fact that they were entertaining sand and gravel men and referred to the industry frequently in their remarks and occasionally in their pictures.

Following a "thank you" talk by President Huffstetter, the banquet adjourned in regular order.

The next meeting will be held at Indianapolis on Monday, Feb. 21, at which time the constitution and by-laws of the association will be adopted and other urgent business transacted.

GRAVEL PLANTS CONSOLIDATE.

The Neal Gravel Co. was organized at Indianapolis on Feb. 3, when a charter of incorporation for \$100,000 was granted under the Indiana state laws. The new concern will be a consolidation of three companies heretofore acting as independent units at Attica, Silverwood and Covington, Ind., and involves the merging of the production and sales of the Attica Gravel Co., the Silverwood Sand and Gravel Co. and the Universal Sand and Gravel Co.

A sales office of the new company will be maintained at Indianapolis, while the main office, as formerly, will be at Mattoon, Ill.

The plant recently purchased at Covington is undergoing a complete change, a new washing and crushing plant being installed by members of the company. A dragline outfit, with the Dull screens, is being installed. It is planned to have the plant ready for operation in early spring and with its assistance the company will have a daily capacity of about sixty cars, equally divided between the three plants.

The material at these three plants runs about uniform with that of other plants in the neighborhood, containing about 40 percent sand.

Elmer E. Neal, Indianapolis, Ind., is president of the new organization. Other officers are: B. E. Neal, Indianapolis, Ind., vice president; H. E. Neal, Mattoon, Ill., secretary-treasurer and general manager; E. L. Stark, Mattoon, Ill., sales manager.

CLAY PRODUCTS

Activities of the Clay Field

Dunn Wire-Cut-Lug Brick Co., of Conneaut, Ohio, has added to its licenses the Burton-Townsend Co., of Zanesville, Ohio, whose two plants make 160,000 brick per day and the Trimble Face Brick Co., of Dayton, Ohio, which has one plant at Trimble and another at Glouster, Ohio.

The Freeport Clay Products Co., of Freeport, Pa., recently elected these officers for the ensuing year: President, T. O. Jones; vice president, J. A. Gravatt; secretary-treasurer, J. H. Oppenheimer; directors, J. J. Paige, W. F. Heinie, A. L. Chapman and Thomas N. Gummert, of Tarentum, S. D. Frehling, Marwood, Pa., and Francis Laube, Freeport.

The Corry Brick and Tile Co., of Corry, Pa., recently elected these officers: President, John L. Stone; secretary and treasurer, A. J. Hazeltine; general manager, D. Warren DeRosay. The company will add several more kilns and will also install a ten-track dryer. Last year was the best year in its history, for the company handled more than 1,000 cars of material. Its factory is now shipping 30,000 brick per day.

The Eastvale Face Brick Co. has been organized in Pittsburgh with the following local incorporators: Jacob J. Voegtly, A. H. Morrow and W. H. Dodds.

The main office of the Royalton Shale Brick Co., at Royalton, Pa., was burned about two weeks ago.

The American Tile Co., of Wampum, Pa., proposes to enlarge its plant and increase its equipment considerably before spring. Recently it elected these officers: President, J. S. Myers; general manager, J. F. Froyn; general superintendent, F. B. Myers.

The Yingling-Martin Co., of Johnsonburg, Pa., shut down its plant for a few days recently to make extensive improvements. Last year the company turned out 14,000,000 brick, or about 1200 car loads. Its specialty at present is a particularly artistic line of face building brick in different shades. On Jan. 13, the company elected these officers for this year: R. G. Yingling, president; E. C. Clark, vice president; J. C. Millen, secretary and treasurer; W. H. Signor, general manager; J. C. Millen, assistant manager.

At the recent election of the Kaul Clay Manufacturing Co., of Toronto, Ohio, Dr. H. E. Kilgus was made president, and I. T. Kaul, secretary and treasurer.

The West Virginia Paving and Pressed Brick Co., of Huntington, W. Va., will break ground at once for new kilns.

Dennis Leahy, a big manufacturer of building brick at Pence Springs, W. Va., has contracted for the entire output of his plant for 1916. He will at once build a big addition to manufacture paving brick.

The Harbison-Walker Refractories Co. is operating plants in Retart, Phillips, Wallaceon, Bigler, Stronach and Clearfield, Pa., and has increased the wages of its several thousand employees. Also the General Refractories Co. and the Bickford Fire Brick Co. of Curwensville, Pa., have increased the wages of their employees.

The Hay Walker Brick Co. has filed papers at Albany, N. Y., for the purpose of dealing in brick, stone, terra cotta, lumber, cement and all kinds of building material, etc., with \$100,000 capital stock. Robert L. Findlay, 470 Fourth avenue, Man-

hattan; Andrew A. Ayers, 925 Jefferson avenue, Brooklyn; William C. Black, Rutherford, N. J., and others, are directors.

The United Potteries Co. has been chartered to manufacture pottery, ceramic and earthenware generally, general quarry business, deal in building materials, realty and construction, with \$10,000 capital stock. The directors are Adolph Plass, 145 West Eighteenth street, Manhattan, and others.

Fourteenth Annual Convention C. N. C. P. A.

The fourteenth annual convention of the Canadian National Clay Products Association was held at the King Edward Hotel, Toronto, Jan. 18, 19 and 20, 1916. The registration surpassed that of last year though not up to the 1914 figures. The first session was opened on Tuesday afternoon by the Rev. Dr. G. C. Pidgeon, after President J. Edward Frid, of the George Frid Brick Co., Hamilton, gave the president's annual address in which he pointed out that building permits were showing an improvement and he hoped to see greater activities during 1916.

Speeches of welcome were made by officials on behalf of the city and D. A. Lochrie on behalf of the entertainment committee. Replies were made by Joseph Russell, M. P. P., brick manufacturer, Toronto, and Hubert Desjardins, of the Montreal Terra Cotta Co., Montreal.

Reports were made by the executive and technical education committees and by the secretary-treasurer. Then followed the election of officers which resulted as follows:

First president, C. A. Millar, president Prices' Limited, Toronto.

President, J. Edward Frid, Geo. Frid Brick Co., Hamilton.

First vice-president, A. F. Greaves-Walker, Sun Brick Co., Toronto.

Second vice-president, Thos. Kennedy, Dominion Sewer Pipe Co., Swansea, Ont.

Third vice-president, Wm. Burgess, superintendent Don Valley Brick Works, Todmorden, Ont.

Secretary and treasurer, G. C. Keith, 32 Colborne St., Toronto.

Councillors: Charles B. Lewis, manager, Toronto Pressed Brick Co., Toronto (plant at Milton); Daniel A. Lochrie, Toronto (plant at Weston); Ryland New, president, Hamilton and Toronto Sewer Pipe Co., Hamilton; Walter Clark, Corunna, Ont.; Albert Neal, Kingston Brick and Tile Co., Kingston; Thos. Graham, Shale Products, Ltd., Inglewood, Ont.; John S. McCannell, president, Milton Pressed Brick Co., Milton, Ont.; Hubert Desjardins, Montreal Terra Cotta Co., Montreal (plant at Lake-wood, P. Q.).

Hamilton was selected as the next place of meeting.

At the two sessions on Wednesday, Jan. 19, papers and addresses were given in the following order: "Operating Clay and Shale Pits," by Wm. Burgess; "Brick," by J. P. Hynes, of Hynes, Feldman and Watson, Architects, Toronto; "Application of Salt and Quicklime in Drying," by Joseph Keele, Mines Branch, Ottawa; "Building By-Law Requirements," by W. W. Pearse, City Architect, Toronto;

"Hollow-Ware Dies," by A. F. Greaves-Walker, Toronto.

The following resolution was adopted at the conclusion of the address by Mr. Pearse:

In view of the wide demand by municipalities, engineers, architects and builders for definite and accurate information regarding the qualities of building materials used in Canada, and

Whereas, Canadian builders are now compelled to base designs and specifications on tests made in the United States bureaus on United States materials, which results are seldom applicable to Canadian materials and conditions.

Therefore, We, the Canadian National Clay Products Association, in convention, do urge the Dominion Government the need of establishing a testing bureau for the purpose of supplying this information. Laboratories have already been established at the mines branch of the department of mines, Ottawa, for the examination of raw materials used in the building trades, and these might be extended to serve the purpose outlined in the resolution.

The annual banquet was held at the Prince George Hotel, Wednesday evening, 150 being present. Mayor Walters, of Hamilton, was the guest of honor.

The following papers were given at the Thursday sessions: "Safety in Clay Products Plants," by C. A. Millar; "Future of the Face Brick Industry in Canada," by F. R. McCannell, Milton Pressed Brick Co., Milton; "Clay Deposits in Southern Saskatchewan," by N. B. Davis, Mines Branch, Ottawa; "Economical Power," by A. M. Wickens, Toronto; "Clay Preparations for Stiff Mud Products," by R. T. Stull, Conneaut, Ohio. "Selling Brick, Tile and Hollow Ware," was introduced by letter by L. Harry Wiers, of Windsor, and thoroughly discussed.

Wisconsin Clay Men Meet.

The sixteenth annual convention of the Wisconsin Clay Manufacturers' Association was held in Milwaukee, Jan. 27-28. About forty of the Wisconsin manufacturers of brick and tile and representatives of closely related interests were present. Various topics of interest were before the convention for discussion, perhaps the most important of which was freight rates on brick and tile.

A hearing before the Wisconsin Railroad Commission took place at Madison during the week of Jan. 31, in which the rates on some 50 or 60 commodities are involved, brick and tile being included.

At the hearing in Madison the following manufacturers were present:

A. W. Hilker, Racine, Wis.
J. J. Marquis, Burlington, Wis.
I. G. Toepfer, Acme Brick & Sand Co., Milwaukee, Wis.

H. J. Smythe, Wisconsin Brick Co., Madison, Wis.
O. C. Bauer, Hydraulic Press Brick Co., Menomonie, Wis.

S. Weidman, Secretary of the Wisconsin Clay Manufacturers' Association, Madison, Wis.

BRICK PLANTS TO BE ENLARGED.

Pittsburgh, Feb. 3.—Throughout the Pittsburgh district, brick concerns are arranging to enlarge their plants and extend their operations this year. The feeling is that building will be so much better as to make a very decided increase in the demand for brick. Brick men are hoping that with money as plenty as it is for bond issues, there may be a large number of contracts awarded for street and road work. The number of bond issues this winter is unusually large and most of them are being arranged without serious trouble.

GYPSUM PRODUCTS

BEST BROS. PLANT DESTROYED.

The Medicine Lodge, Kan., mill of the Best Bros. Keene's Cement Co. was destroyed by fire of unknown origin during the early hours of Sunday morning, Jan. 30. Every effort is being made to rebuild the plant and have it in operation at the earliest possible moment, but owing to the difficulty of securing structural steel and other building materials it will probably be three or four months before the company will be in a position to accept orders for Keene's cement.

"During the interval that we are compelled to devote to rebuilding and installing the necessary manufacturing equipment, we can only ask for the retention of the good will of our many customers," says Thomas Best, "and hope that we may again be favored with their orders for Keene's cement as soon as we are in a position to resume work."

LOUISVILLE PLASTER CONTRACTORS BUSY.

Louisville, Ky., Feb. 3.—Mild weather this winter has enabled the wall plastering contractors to go right ahead with indoor work, with the result that there has been a good demand for wall plaster all season. Outdoor work has dragged a little during the past month, and the plasterers are now catching up with the builders, but from present indications

it appears that business will be good throughout the spring.

William Selke, of the Atlas Wall Plaster Co., reports that the volume of small building which has been handled this season has aided considerably in bringing out a good demand for wall plaster. While buildings now being erected are not large, they are very numerous.

A few small improvements have been made in the plant of B. J. Campbell & Sons, where several new plumbing fixtures have been installed along with other improvements.

PLASTER ITEMS FROM THE PACIFIC.

San Francisco, Cal., Feb. 3.—The union plasterers have gone back to work on the pathological building of the San Francisco Hospital, where they walked out a few days ago on account of the refusal of the Board of Works to appoint a plasterer as building inspector for their part of the work, instead of the regular building inspector. The matter was referred to the building trades council, which failed to support the plasterers' contention.

Figures have just been submitted for plastering on the new University of California hospital, which will be quite a large job.

The Hanover Gypsum Co. has been incorporated at Hanover, Mont.

NEW AGREEMENT OF PLASTERERS.

New York, Feb. 3.—A new agreement between the employing and journeymen plasterers and cement finishers of New York has been approved and will become operative on April 1, whereby the men will receive a daily wage of six dollars. This is in lieu of the introduction of the steward system in this city, as explained in a previous issue of *Rock Products and Building Materials*.

This is a result of conferences lasting almost six months and despite the high wages allowed, the bosses are almost unanimous in the opinion that it is one of the best working agreements that has ever been introduced here.

The Southern Plastering Co. has been organized at Nashville, Tenn., as a subsidiary of the building material firm of T. L. Herbert & Sons, with capitalization of \$5,000. The incorporators include three members of the firm and two plastering contractors, they being as follows: W. B. Herbert, R. D. Herbert, T. L. Herbert, Jr., F. H. Wheeler and George Hutcheson.

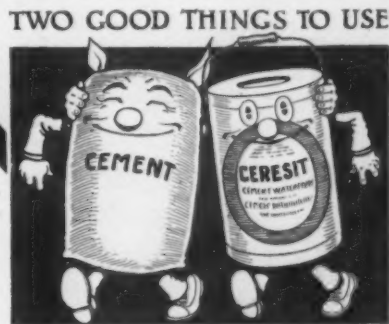
Dominion Plaster Board Manufacturing Co., Montreal, Que., Canada; incorporators: J. E. Shea, J. Martin and N. Paquette.

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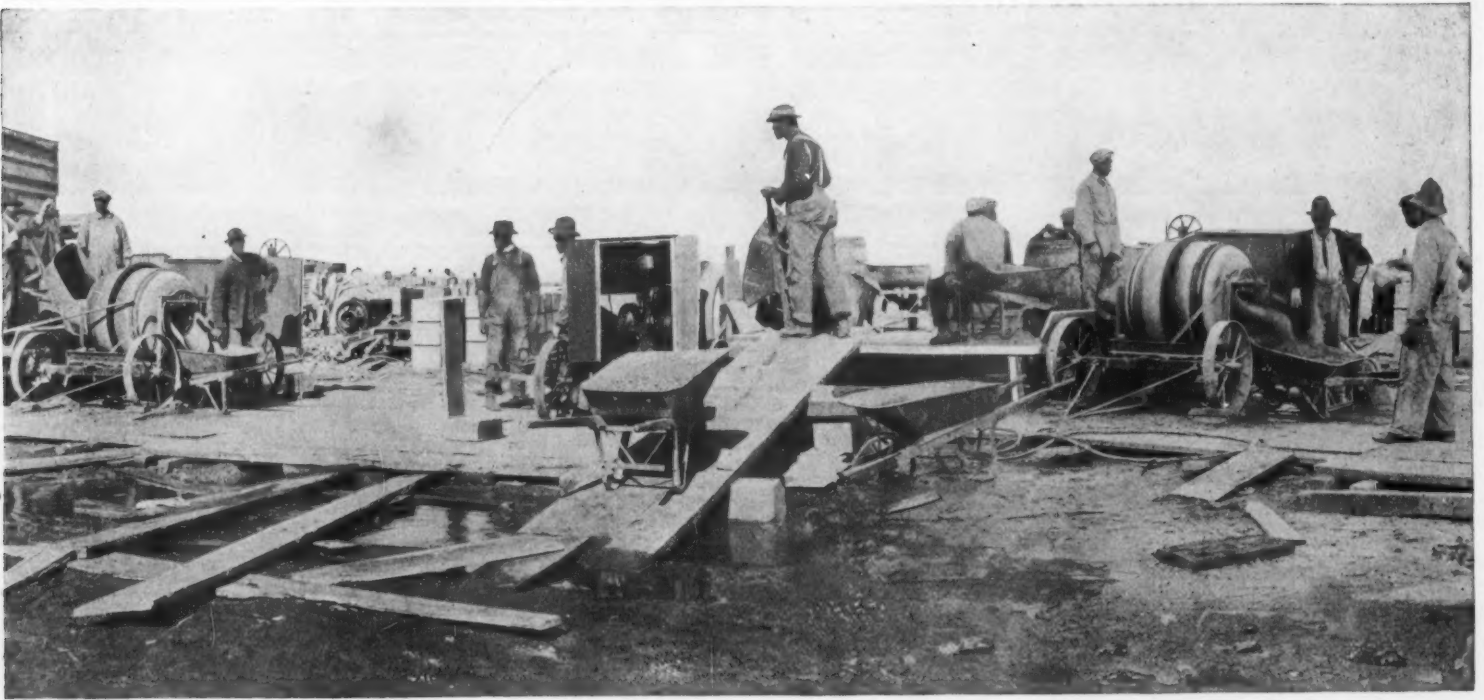
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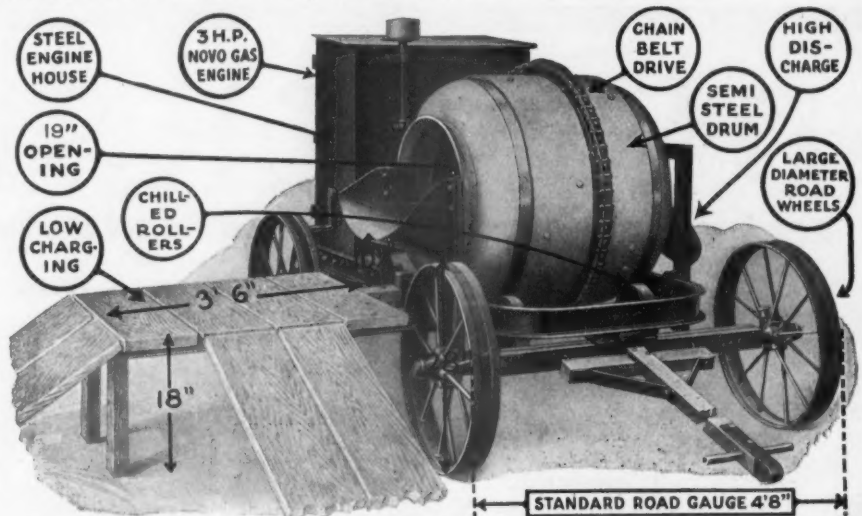
13 REX MIXERS

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WANTED—Quarryman foreman, who is sober, familiar with explosives, horses, motor trucks and can handle Italian labor. Quarry Eastern, Pa. State Salary, experience and previous employer. Address Box 1098, care ROCK PRODUCTS AND BUILDING MATERIALS.

WANTED—Active Partner for up-to-date Cast Cut stone plant near Philadelphia, Pa. Must be competent to take charge of office or factory. Investment preferred, but not essential. Pompelan Stone Co., A. Schilling, Mgr., Haddon Heights, N. J.

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WANTED—One #36" used, Symonds Disc Crusher, Address Newton County Stone Co., Kentland, Ind.

WANTED—One second hand Steam Shovel Marion Model 61, or similar type. Send specifications and state price wanted to the GRODWARDS CO., Cobalt, Ontario.

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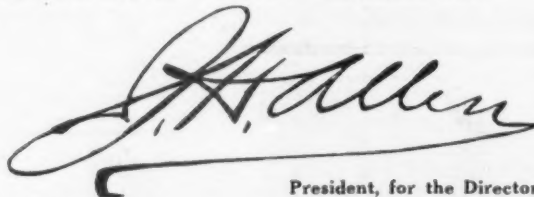
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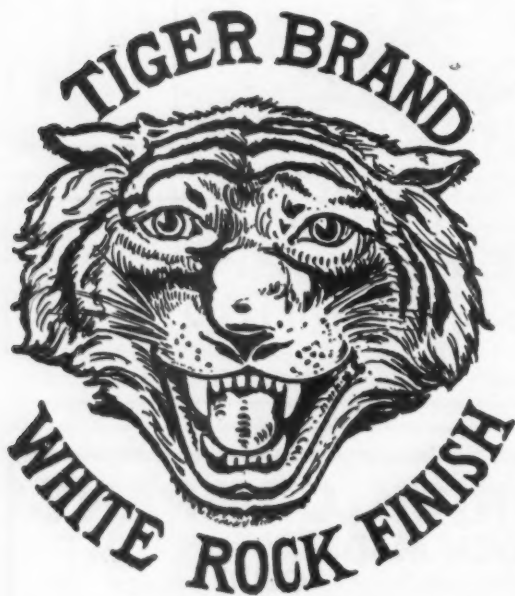
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Bostwick Steel Lath Co. 37	Fuller Eng. Co. 55	Loomis Machine Co. 55	Reynolds Asphalt Shingle Co. 37	Whitehall Cement Mfg. Co. 14
Bourse, The. 51	Garford Motor Truck Co., The 67	McLanahan Stone Mch. Co. 6	Ricketson Mineral P. Wks. 37	Williams, C. K., Co. 14
Bradley Pulv. Co. 51	German-American P. C. Co. 64	Marquette Cement Mfg. Co. 65	Ruggles-Coles Eng. Co. 37	Williams Patent Crusher & Pulverizer Co. 14
Bromwell, A. P. 51	Glutrin Paving Co. 59	Metropolitan Paving Brick Co. 3-53	Sandusky Portland Cem. Co. 63	Wolverine Portland Cement Co. 65
Butterworth & Lowe. 51	Goodrich, B. F., Co. 70	Midland "Crusher-Pulverizer Co. 15	Sauerman Bros. 10	Woodville Lime & Cement Co. 1
Cable Excavator Co. 2	Gordon-Hittl Co. 55	Midland "Crusher-Pulverizer Co. 15		
Cabott, Samuel, Inc. 2	Gruendler Pat. Crush. & Pulv. Co. 55			
Caldwell, H. W., & Son Co. 2	Haiss, Geo., Mfg. Co. 9			
Calvert Mortar Color Works. 62	Hendricks Mfg. Co. 53			
Cardiff Gypsum Plaster Co. 62	Hunt, Robert W., & Co. 53			
Carolina Portland Cement Co. 51	Huron & Wyandotte Portland Cement Co. 2			
Cement Tile Machinery Co. 49				
Ceresit Waterproofing Co. 50				
Chain Belt Co. 50				
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Chicago Portland Cement Co. 62				
Clayton Air Compressor Wks. 62				

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5,916 Per Cent Increase

In 1908 there were 819,515 square yards of concrete road, street and alley pavements in the United States. In 1915 there were 49,304,206 square yards.

Universal Portland Cement was used in many millions of this yardage.

The accompanying chart illustrates the steady increase in the use of this type of pavement in a state which has a well organized highway department. It is typical of many states.

Here also Universal was largely used.

Concrete enables the engineer to build the maintenance into the road, and solves the perplexing problem of keeping the highway in good repair. Experience shows that concrete pavements cost less than \$30 per mile per year to maintain.

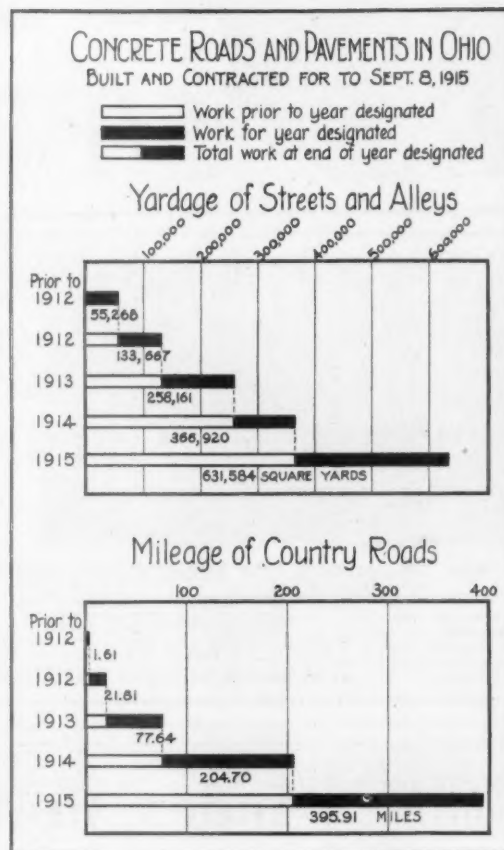
Detailed information on this subject is contained in the booklet, "Facts Everyone Should Know About Concrete Roads," which may be obtained on request.

The latest approved practises in concrete road construction and other valuable data on this subject will be shown in the great Joint Exhibit of the Universal Portland Cement Co. and 29 other cement manufacturers at the

Ninth Chicago Cement Show
Coliseum and Armory, February 12-19

During the same week many noted engineers, contractors and road officials will present the latest information on all phases of concrete road and pavement practise at the

Second National Conference on
Concrete Road Building
Auditorium Hotel, Chicago, February 15-18



UNIVERSAL Portland Cement Co.

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CHICAGO 208 South La Salle Street
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40,000 Barrels
Daily

Plants at
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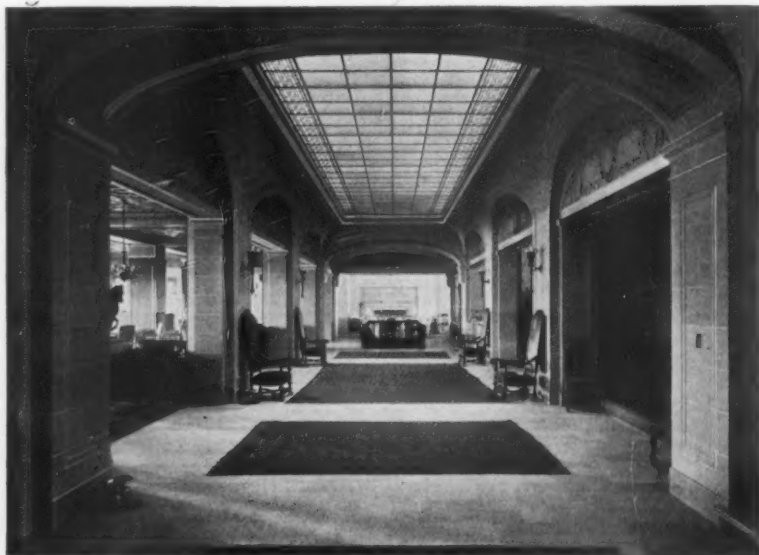
CONCRETE FOR PERMANENCE



You will be disappointed if we do not see
you personally at our "Old Dutch Kitchen"
in the Complete Building Show, Cleveland,
February 16-26.

FARR BRICK CO., Cleveland, O.
Daily Capacity 450,000

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Main Lobby, Cleveland Athletic Club, Cleveland
Finished in Excelsior Caen Stone Cement, J. Milton Dyer, Architect.

Have you investigated the selling possibilities of **Excelsior Caen Stone Cement**?

It is a high class money maker to handle and dealers all over the United States are adding this valuable product to their building material stock.

Excelsior Caen Stone Cement

Excelsior Caen Stone Cement is a successful substitute for French Caen Stone. After being applied and jointed off, it is in every respect an exact reproduction of the quarried stone, absolutely fulfilling the essential requirements of durability, texture and color.

The coloring of Excelsior Caen Stone Cement is a light buff or cream, obtained solely by the use of a finely powdered stone as one of its principal ingredients. No artificial coloring is used.

Excelsior Caen Stone Cement is a free working, plastic material, that can be applied readily by any competent plasterer. Its approval by the Supervising architect and use in a number of Post Offices throughout the United States, as well as in the leading clubs, theaters, state buildings, residences, etc., where practical tests of time and results have made for it a lasting reputation, is proof of its success. And when added to this are good profits, large sales, and the guarantee of the manufacturers, Excelsior Caen Stone Cement becomes a product which is a business proposition no dealer can afford to be without.

We will be glad to explain Excelsior Caen Stone Cement to any dealer and urge you to write for complete information on this valuable product



The Cleveland Builders Supply Company

Manufacturers and Distributors

Leader News Building,

Cleveland, Ohio



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS




GLUTRIN.

Glutrin-Bound Roads

Do not ravel with traffic.
Do not bleed in hot weather.
Do not break up by frost.
Forms a hard, compact surface.
Just right for perfect traction.
Every month in the year.

Glutrin Road Binder is the simplest surfacing process known. The liquid binder material is applied from an ordinary water sprinkler. It is mixed in with the water without heating or any other expense. Merely pour the Glutrin into the water and stir it thoroughly. The roller follows the sprinkler in the usual way, resulting in the road surface that gives the biggest service per dollar of first cost.

Lowest in first cost.
Lowest upkeep cost.
Figures a profit for
contractor and ma-
terial producer.

 All road material producers should positively advocate the use of GLUTRIN ROAD BINDER in the construction of macadam roads, because it supplies all the lacking essentials to make perfect road efficiency in the cheapest and most satisfactory way.

Your Co-operation Cordially Invited

GLUTRIN PAVING COMPANY
HARTMAN BUILDING
COLUMBUS, OHIO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

WE'LL ALL BE THERE
CLEVELAND DEALERS' CONVENTIONS

TOLEDO OFFICE
Under Management
W. E. SHEARER

LAWRENCE OFFICE
Under Management
B. A. WILLIAMS



BUFFALO OFFICE
Under Management
H. F. DORCHESTER

FT. DODGE OFFICE
Under Management
R. W. MERRILL

The above trademark is recognized by building-material dealers, architects, contractors, and plasterers, as the mark of the most efficient construction materials made from gypsum rock. It stands for superiority in quality of gypsum, excellence in manufacture, ample modern facilities for supplying the demand for the finished product, and finally, satisfaction to the architect, the contractor, the dealer, and the builder.

This trademark also identifies the best in gypsum products as being manufactured by

THE AMERICAN CEMENT PLASTER COMPANY

Chicago

Buffalo

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Ft. Dodge

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Kansas City

*A Remarkable Record of Results
 A Reputation for Merit and Excellence
 An Increasing Demand and Universal Satisfaction*

These are the factors that have made

**Trus-Con Waterproofings, Damproofings
 and Technical Coatings**

the standard dealer products of their kind on the market

The Trus-Con Line offers a multitude of attractions to dealers. Advertising co-operation and literature, educational work among Architects by technical experts, branch offices in all principal cities, subject

to call by dealers, a new and effective method of furnishing and following prospects—these and numerous other advantages make a proposition which should be of interest to all building supply houses.

Splendid dealer connections already exist thruout the country, but a few desirable localities are yet to be covered. Full information upon dealer arrangements will be gladly furnished on request

THE TRUS-CON LABORATORIES, Detroit, Mich.

Manufacturers and Inventors of WATERPROOFINGS, DAMPROOFINGS AND TECHNICAL COATINGS

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Hydrated Lime

*The Best
Ohio Product*

WHITENESS—FINENESS—UNIFORMITY



Monarch Dealers get all the
advantages of High Reputa-
tion in Quality and Reliability
for gaining satisfied customers

ARRANGE CONNECTIONS NOW

National Lime and Stone Co.
CAREY, OHIO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



United States Custom House and Postoffice, Omaha, Neb
KALLOLITE PLASTER USED

Kallolite Cement Plaster

Was used on the Omaha Post Office, as well as many other

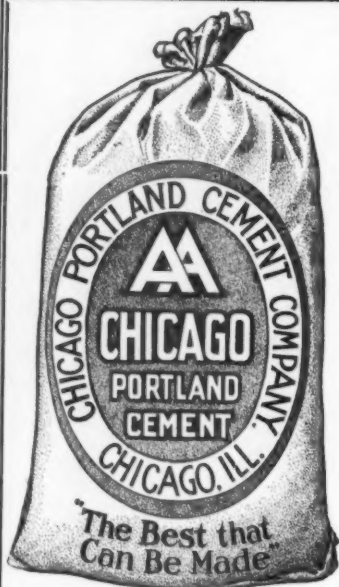
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Kallolite Cement Plaster is manufactured from the Purest Gypsum Rock found in the United States as shown by last Government Report.

CARDIFF GYPSUM PLASTER CO.

✉ Write for literature.

FT. DODGE, IOWA



For the Better Class of Cement Work

FOR almost twenty years CHICAGO-AA Portland Cement has been used in work of all kinds and it has given satisfaction—always.

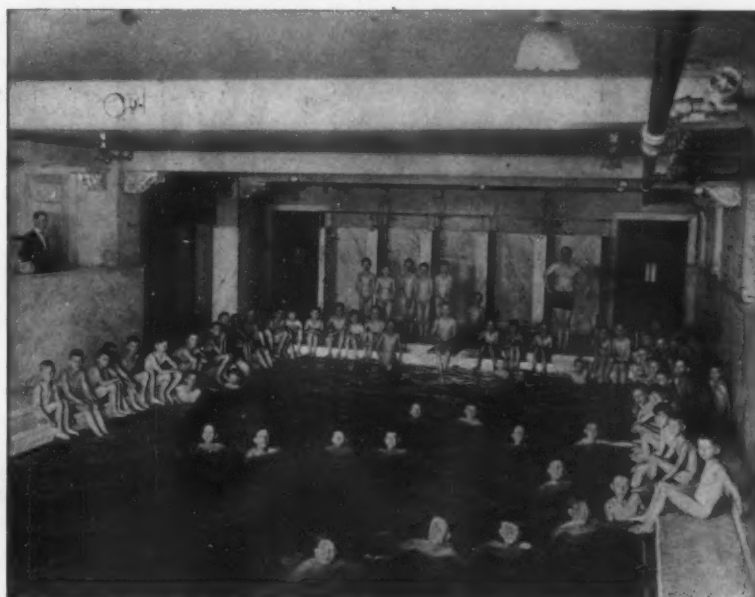
CHICAGO-AA is a prime favorite in the better class of concrete work, where bright, uniform color, as well as high quality, is demanded.

Our latest publication, PARK PERMANENCE, is now ready for distribution. It describes by word and picture the extensive concrete work now being done in Grant Park, Chicago. This book is free to architects, contractors and others who are interested in the better class of cement work.

Chicago Portland Cement Company
30 North La Salle Street Chicago

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MEDUSA WATERPROOFING



Y. M. C. A. Swimming Pool, Wheeling, West Virginia

Giesey & Paris, Architects

Waterproofed with Medusa Waterproofing

Medusa Waterproofing does not affect the color, strength, setting or hardening qualities of concrete and when used in proper proportions it will make concrete work impervious to water and prevent discoloration from rain. Gives absolutely permanent results.

Medusa Waterproofing prevents the white **efflorescence** which so often renders cement work unsightly; also prevents the appearance of **hair-cracks** in stucco.

Medusa Waterproofing will be found to be especially suitable for building blocks, cement plastering, roofing tile, cellar walls and floors, cistern and reservoir linings, conduits, sewer pipe, elevator pits, and in a multitude of other uses in which resistance to percolation of water is required.

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SANDUSKY PORTLAND CEMENT CO.
ENGINEERS BUILDING CLEVELAND, OHIO

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OWL CEMENT

The Last Word in "Concrete for Permanence"

"Ask the Man Who Uses It"

QUALITY and SERVICE?

We Furnish the Best at
All Seasons of the Year

*"Don't forget" to Visit the Joint Cement Exhibit in
South Half of Armory*

**German-American
Portland Cement Works**

E. L. Cox, G. S. A.

140 South Dearborn Street

Chicago, Illinois

Works: La Salle, Illinois

"CONCRETE FOR PERMANENCE"

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Concrete for Permanence "Wolverine" for Concrete

Wherever used "Wolverine" has
always given the highest satisfaction

Visit Our Exhibit at
Ninth Chicago Cement Show — February 12-19, 1916
Coliseum and First Regiment Armory

WOLVERINE PORTLAND CEMENT CO.
COLDWATER, MICH.

Write for prices and information. W. E. COBEAN, Gen. Sales Agt.



The permanent plaster for interior walls. May be re-tempered as often as necessary. Makes a perfect bond on concrete, brick, tile or lath.

**Best Bros.
Keene's Cement**
The Plaster That Stands
Hard Knocks

The Best Bros. Keene's Cement Co.
Established 1889
Dept. A, MEDICINE LODGE, KANSAS
New York—Chicago



PLYMOUTH GYPSUM CO.

FORT DODGE, IOWA

Manufacture what is known as QUALITY BRANDS
ORDER A CAR AND BE CONVINCED

Plymouth Plaster & Finishes	White Sand Float Finish
Plymouth Wood Fibre Plaster	Best Bros. Keene's Cement
Acolite Cement Plaster	Sackett Plaster Board
(the long keeper)	Tiger Brand Hydrated Lime
Exterior Plaster	Fireproof Gypsum Partition Tile

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BRANCH OFFICES: 1015 Lumber Exchange, Minneapolis
5040 St. Lawrence Ave., Chicago



**PLYMOUTH
CLAY
PRODUCTS
CO.**

FORT DODGE, IOWA

THE GUARANTEE OF SATISFACTION



"There's a
Zig Zag
Tag

On Every
Bag."

¶ This tag insures satisfaction to
the owner, architect, engineer and
contractor.

¶ Look for the green tag.

Marquette Cement Mfg. Co.
1335 Marquette Building : Chicago

"Concrete for Permanence"

NORTH-WESTERN PORTLAND CEMENT



The Reliable Portland Cement

A Portland Cement for the
NORTHWEST

**North-Western States Portland
Cement Co.**
MASON CITY, IOWA

The First Portland Cement Manufactured in America

1866

1916

PORTLAND SAYLOR'S CEMENT

Coplay Cement Manufacturing Company

Mill: Coplay, Lehigh Valley, Pa.

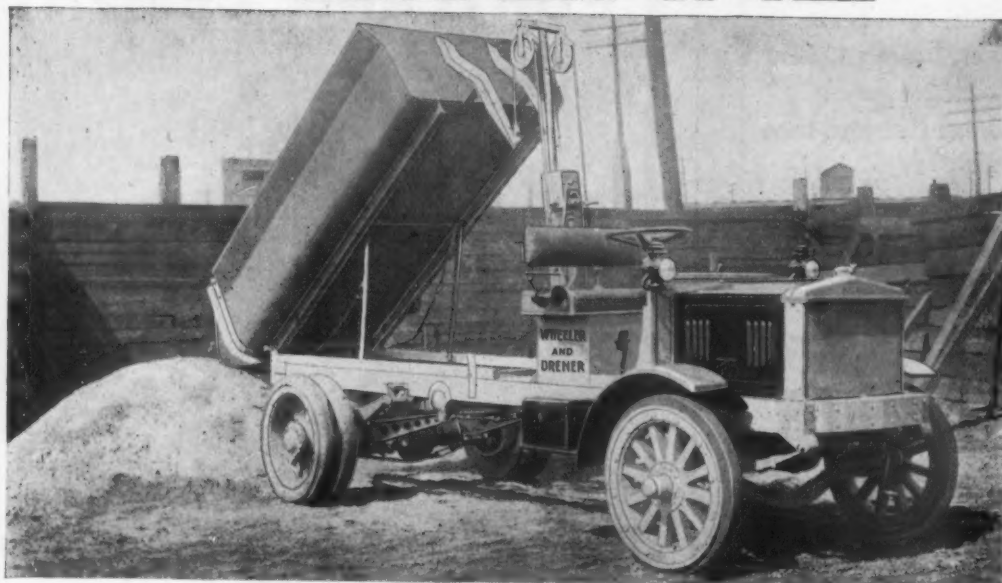
PHILADELPHIA

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JACKSONVILLE, FLA.

The **FEDERAL** Saves Time
and Money



Federal Motor Trucks

save a great deal of time on all kinds of hauls; short hauls and long hauls over either good, fair, or bad road conditions. A Federal will get the materials there in short order.

The longer the distance the greater the saving of Federalized Transportation over old methods.

Investigate Federalized Transportation You will be impressed by the clean-cut, sturdy lines of the Federal chassis and you will be interested in learning how Federal Trucks have saved time and money for other concerns in your line. You owe it to yourself and to your firm to have us show you what Federal Trucks will do for your business.

FEDERAL MOTOR TRUCK COMPANY, 700-710 Leavitt St., Detroit, Michigan

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Garford

MOTOR TRUCKS.

$\frac{3}{4}$, 1, 1½, 2, 3, 5 and 6 ton capacity

Good Roads and Better Business

Wells Fargo & Company.
President's Office
51 Broadway.

New York. December 20, 1915.

Dear Mr. Williams:

Have read with a great deal of interest your booklet and interesting series of follow-up letters respecting the Garford Motor Truck Good Roads Campaign, which you were kind enough to send me and ask for my opinion thereon.

It seems to me to be an admirable piece of constructive work upon which you and your Company are to be congratulated, especially when considering the marked appreciation shown by the large number of commendatory letters you have received from public officials in all parts of the United States.

The latter confirms our own experience as showing that the public is always responsive to constructive work in improved methods which contribute to the general good.

We are as you knew trying to work upon similar lines in strengthening and improving our express service as an essential necessity to the business interests of the country and at promoting the growth and expansion of business in general.

With best wishes.

Respectfully,

B. D. Caldwell
President.

Mr. S. M. Williams,
Sales Manager, The Garford Motor Truck Company,
Lima, Ohio.

The Garford Motor Truck Company early appreciated that the growth of its business depended largely on the expansion of business in general.

We also appreciated the fact that no single factor so directly contributes to the prosperity of every community and its business interests, as good roads.

A national investigation of road conditions led us to solicit the co-operation of leading automobile manufacturers in a broad campaign to crystallize public sentiment in favor of a universal improvement in the condition of public highways.

We did not secure co-operation.

Consequently the Garford Motor Truck Company undertook this herculean task **absolutely unaided.**

After months of work in the compilation of lists and the preparation of material, we distributed some twenty thousand copies of our book "Roads—Their Influence Upon Economic and Social Conditions" among state and county officials, engineers, prominent business men and educators.

Since then requests have been received from Good Roads Associations, Chambers of Commerce and influential men for over **250,000 copies of the booklet** for use in Good Roads Campaigns in all sections of the country.

The letter from Mr. B. D. Caldwell, president of the Wells-Fargo Company, is typical of the many expressions received from business men.

We ask your co-operation in this work which so vitally affects the welfare of every individual. Your copy of our booklet will be mailed free upon request. Please address Dept. 901.

The Garford Motor Truck Company, Lima, Ohio

Distributors and Service Stations

New York,
Kansas City,

Boston,
Denver,

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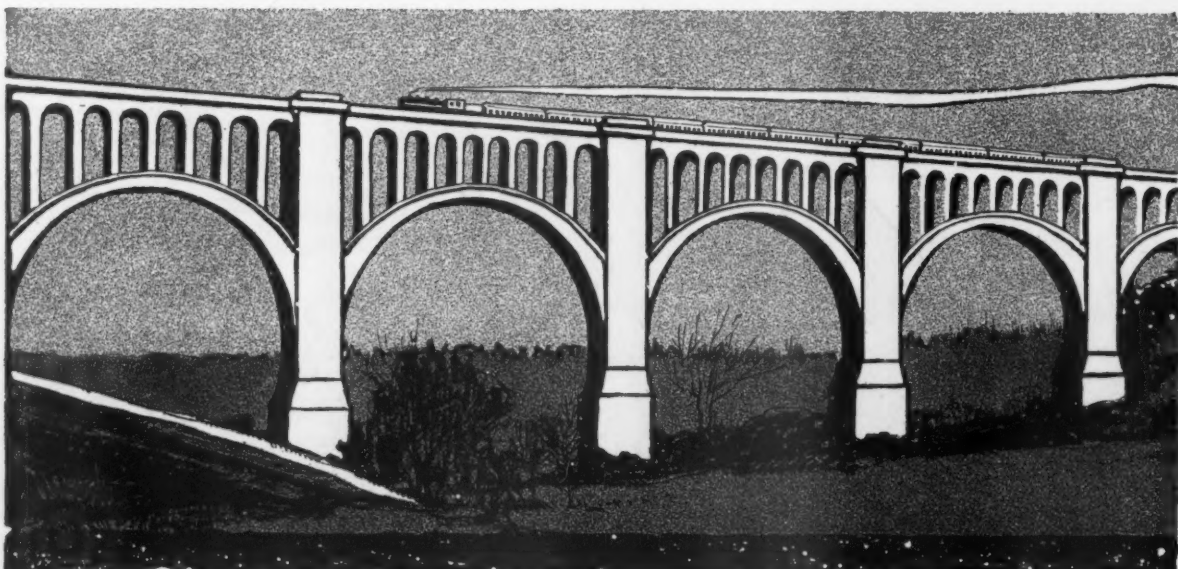
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Cincinnati,

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Indianapolis.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



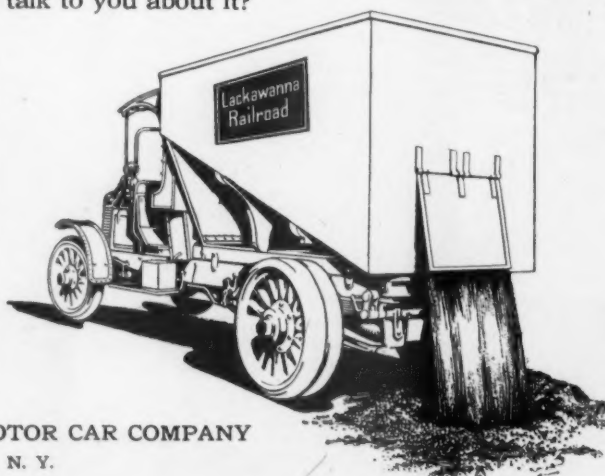
Spending Money to Save It

Have you ever traveled over the new "Lackawanna Cut-off," where the express trains roar over thousand-foot bridges and viaducts, high above the rivers and valleys, or plunge into cavernous "cuts" a hundred feet deep and more, running straight as a ruler's edge through miles of solid rock?

It cost Miss Phoebe Snow a pretty penny to straighten out her "Road of Anthracite" in this way—somewhere around \$10,000,000 to save 11 miles of grades and curves—but she finds that the resulting operating economies have well justified even so vast an expenditure of money.

Now Miss Snow is also an owner of motor trucks, and we take it as a compliment that so competent a judge of transportation problems should have selected Pierce-Arrows.

Perhaps there is a possible "cut-off" in your own delivery or transportation costs. Perhaps Pierce-Arrow motor trucks can show you where and why and how. May we talk to you about it?



THE PIERCE-ARROW MOTOR CAR COMPANY
BUFFALO, N. Y.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

RY 7, 1916

1916 Will Be a Big Building Year

Mr. Dealer: Do you know that there is a real demand for a

Fire Resisting Roof



for residences, etc., which will not ignite from flying embers—that will not dry up, crack or curl—that is reasonable in price to fit the average man's pocket book—that does not require heavy timbering—that is artistic.

Hudson Asphalt Shingles

Slate Surfaced Red or Green

fill the bill exactly.

Dealers may well be proud of them. The sales of Hudson Asphalt Shingles in 1915 nearly doubled those of 1914. It looks as if 1916 would double 1915. Now is the time to get aboard. It will only cost a postage stamp to get our proposition.

We Want Live Dealers

where we are not represented, and we will co-operate with them to make it worth while. One live dealer's sales of Hudson Asphalt Shingles in a few months amounted to over \$2500.

This is also the time to investigate our other Hudson Asphalt Products.

PROTECTION BRAND ROOFING—Sand or Gravel Surfaced, has 6 inch lap laid with all nails covered. Joints absolutely tight.

ROCKLAND ROOFING—Surfaced with Red or Green Crushed Slate or Gray Feldspar. A red or green roof in natural unfading colors at low cost can be obtained by using this material.

ARROW BRAND ROOFING—Sand or Gravel Surfaced.

HUDSON BRAND ASPHALT FELTS—For sheathing buildings. For reinforcing Slate and Tile Roofs.

FULTON ROOFING—1, 2 and 3-ply.

Just mail the coupon and we will send our dealer's proposition.

Asphalt Ready Roofing Co.

Dept. 9 Church Street, New York

Send Dealers' Proposition

Am interested in Hudson Shingles ☐—Protection Brand Roofing ☐—Rockland Roofing ☐—Arrow Brand Roofing ☐—Hudson Brand Asphalt Felt ☐—Fulton Roofing ☐

Put an "X" in the square ☐ after the name of the material you are interested in.

Name.....

Address.....

LOAD BORE HOLES

With Low-Freezing



Quarry Powder

A New, Powerful, Quick-Acting Explosive Especially Made for Winter Work

THIS explosive meets the requirements for an "all-round" powder for quarry work. It has the low-freezing property which makes the thawing of explosives seldom necessary, even in a near zero weather.

Insist that all blasting be done with DU PONT QUARRY POWDER or low-freezing explosives introduced and made by the pioneer powder makers of America.

ASK FOR NEW AND INSTRUCTIVE BOOKLET ABOUT EXPLOSIVES AND METHODS OF USING

E. I. DU PONT DE NEMOURS & CO.

Powder Makers Since 1802

WILMINGTON, DELAWARE



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WHEN other Wire Ropes are represented to be as good as "Hercules" is it not an admission that "Hercules" Wire Rope is the acknowledged standard of quality?



is not made to equal some other rope; it is made to give maximum service—to excel, not merely to equal.

In order that "Hercules" Wire Rope may be easily identified, it is always made with one red strand. It is the original colored strand Wire Rope.

ESTABLISHED 1857

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U. S. G. Co.'s Plant, Oakfield, N. Y. Shown as a Type of U. S. G. Mill Construction.



A NATIONAL INSTITUTION

At every important gypsum producing section of the country is located a U. S. G. Mill. These are the largest and most modern plants in the world devoted to the manufacture of gypsum products. By reason of our superior facilities we are able to give the retail dealer SERVICE and MATERIALS not elsewhere available in the industry. There's a logical reason for the quality of U. S. G. Plasters and their tremendous sales—it's the organization behind the goods.

UNITED STATES GYPSUM COMPANY



New York
Cleveland



Chicago
Kansas City



Minneapolis
San Francisco



OFFICE
190 Geneva St.

McQuade & Bannigan

WHOLESALE AND RETAIL DEALERS IN
CEMENT-LIME-SAND-PLASTER-STONE-BRICK-PIPE-TILE-FIRE BRICK PRODUCTS

Utica Cycle Company,
Utica, N. Y.

Gentlemen:

We have been using the Goodrich Tires on one of our trucks here for the past three years and they have given us the best of satisfaction, in fact, as you know, we have never had an adjustment on one of these tires. In every instance, they covered the guaranteed mileage.

Some time ago, at your suggestion, we substituted for the tires which we had been using the "De-Luxe" Tires. While the "De-Luxe" Tires have not been in use long enough for us to give you any very definite information, we can say that from the wear that is apparent on them now, that they will outlast the guaranteed mileage. We are very much pleased with them and as the old tires wear out, will have the "De-Luxe" Tires applied.

Our drivers think that the "De-Luxe" Tires are more resilient and consequently take a great deal of the vibration out of the motor and save wear on the trucks.

We have no hesitancy whatever in saying that the Goodrich Tires have given us excellent satisfaction.

MTB, FCN

Very truly yours,
W. B. Bannigan

"More resilient, decreased vibration
—saving of wear on trucks, by use of

GOODRICH DE LUXE WIRELESS TRUCK TIRES

The above expresses the opinion of drivers in the employ of McQuade & Bannigan, Utica, N. Y. And truck drivers are men who know what tires will do. They know which tires are the best by

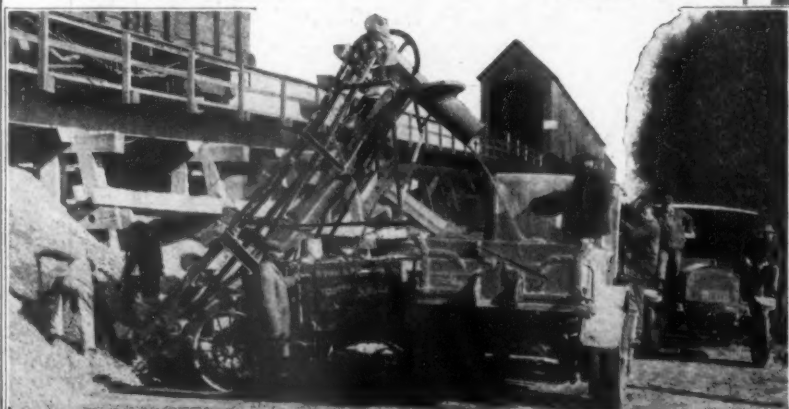
continued test and by comparison with other makes. Don't you experiment. Specify Goodrich. Start your trucks really earning profits, through greater mileages and continuous dependable service.

Goodrich De Luxe—the higher tread tire for the building material dealer's severest truck service is fully described in "Decreasing Truck Vibration."

The B. F. Goodrich Company, Akron, Ohio

Makers of the Celebrated Goodrich Automobile
Tires—"Best in the Long Run"

Service Stations and Branches
in All Principal Cities



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